



58332-B2  
SEQUENCE LISTING

<110> Suciu-Foca, Nicole  
Liu, Zhuoro  
Chang, Chih-Chao  
Cortesini, Raffaello

<120> Generation of Antigen-Specific T Suppressor Cells For Treatment of Rejection

<130> 0575/58332-B

<140> 09/746,311

<141> 2000-12-21

<150> PCT/US00/16594

<151> 2000-06-15

<160> 382

<170> PatentIn version 3.1

<210> 1

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 1

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr  
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
20 25 30

Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn  
Page 1

35

40

45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu  
 50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
 85 90 95

Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
 100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val  
 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 260 265

&lt;210&gt; 2

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 2

Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr  
 20 25 30

Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val Glu  
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
 195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
 210 215 220

58332-B2

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
225 230 235

<210> 3

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 3

Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
65 70 75 80

Val

<210> 4

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 4

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr  
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
20 25 30

Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn  
35 40 45



Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu  
50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile  
85 90 95

Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val  
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
260 265

<210> 5

<211> 225

<212> PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 5

Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr  
 20 25 30

Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Asn Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Glu  
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
 195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
 210 215 220

Lys  
225

&lt;210&gt; 6

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 6

Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser  
20 25 30Val Arg Phe Asp Ser Asp Val Arg Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

&lt;210&gt; 7

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 7

Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser  
20 25 30Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 8

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 8

Arg Phe Leu Trp Glu Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Ser  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 9

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 9

Arg Phe Leu Trp Gln Leu Lys Phe Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Cys Ile Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 10

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 10

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His  
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
Page 9

115

120

125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
 195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
 210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser  
 225 230 235

<210> 11

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 11

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln  
85

<210> 12

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 12

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His  
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

58332-B2

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser  
225 230 235

<210> 13

<211> 100

<212> PRT

<213> Human HLA-DRB

<400> 13

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His  
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr  
100

<210> 14

<211> 85

<212> PRT

<213> Human HLA-DRB



58332-B2

<400> 14

Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg  
1 5 10 15  
Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe Asp  
20 25 30  
Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp  
35 40 45  
Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg Gly  
50 55 60  
Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe  
65 70 75 80  
Thr Val Gln Arg Arg  
85

<210> 15

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 15

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15  
Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Ser  
20 25 30  
Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45  
Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60  
Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80  
Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 16

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 16

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 17

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 17

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

58332-B2

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 18

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 18

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
 50 55 60

Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr Val Gln  
 85

<210> 19

<211> 102

<212> PRT

<213> Human HLA-DRB

<400> 19

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His  
 20 25 30

58332-B2

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr Val Tyr  
100

<210> 20

<211> 102

<212> PRT

<213> Human HLA-DRB

<400> 20

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His  
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr Val Tyr  
100

<210> 21

58332-B2

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 21

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Arg Glu Glu Asn Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys  
50 55 60

Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
65 70 75 80

Ser Phe Thr Val Gln Arg  
85

<210> 22

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 22

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His  
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg  
Page 17



Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45 58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 24

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 24

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg  
 20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
 35 40 45

Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys  
 50 55 60

Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
 65 70 75 80

<210> 25

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 25

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

58332-B2

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 26

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 26

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Lys Arg Gly Arg Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 27

<211> 89

<212> PRT



&lt;213&gt; Human HLA-DRB

&lt;400&gt; 27

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Arg Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 28

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 28

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Trp Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

val

&lt;210&gt; 29

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 29

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 30

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 30

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Arg Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 31

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 31

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 32

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 32

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

## 58332-B2

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Ala  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
 85

<210> 33

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 33

Met Val Cys Leu Lys Phe Pro Gly Gly Ser Cys Met Ala Ala Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu  
 50 55 60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
 85 90 95

Leu Glu Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
 100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Tyr Pro Glu Val  
 115 120 125

## 58332-B2

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu  
 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205

Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 260 265

<210> 34

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 34

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 Page 25

50

55

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

&lt;210&gt; 35

&lt;211&gt; 264

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 35

Cys Leu Lys Phe Pro Gly Gly Ser Cys Met Ala Ala Leu Thr Val Thr  
1 5 10 15

Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr Arg Pro  
20 25 30

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
35 40 45

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
50 55 60

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
65 70 75 80

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
85 90 95

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
100 105 110

Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr Pro Glu Val Thr Val  
115 120 125

Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu Val Cys  
130 135 140

Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg  
145 150 155 160

Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu Ile Gln  
 165 170 175

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr Val Pro  
 180 185 190

Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser Leu Thr  
 195 200 205

Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala Gln Ser  
 210 215 220

Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu Phe Leu  
 225 230 235 240

Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His Ser Gly  
 245 250 255

Leu Gln Pro Thr Gly Phe Leu Ser  
 260

<210> 36

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 36

Gly Asp Thr Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
 20 25 30

His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr  
 85 90 95

58332-B2

Pro Glu Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
165 170 175

His Pro Ser Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
225 230 235

<210> 37

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 37

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60



58332-B2

Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 38

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 38

Met Val Cys Leu Lys Phe Pro Gly Gly Ser Cys Met Ala Ala Leu Thr  
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
20 25 30

Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn  
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu  
50 55 60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
85 90 95

Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr Pro Glu Val  
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu  
Page 29

165 58332-B2 175  
170

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
260 265

<210> 39

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 39

Gly Asp Thr Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
20 25 30

His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg  
85 90

58332-B2

<210> 40

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 40

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Tyr Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 41

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 41

Gly Asp Thr Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
20 25 30

His Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

## 58332-B2

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr  
85 90 95

Pro Glu Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
165 170 175

His Pro Ser Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
225 230 235

<210> 42

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 42

Gly Asp Thr Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
20 25 30

His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85 90

<210> 43

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 43

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg  
 85

<210> 44

<211> 88

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 44

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
 50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 45

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 45

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg  
 1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly  
 20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp  
 35 40 45

Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg Ala Ala Val Asp Thr  
 50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
 65 70

&lt;210&gt; 46

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 46

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
 50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr

&lt;210&gt; 47

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 47

Met Val Cys Leu Lys Phe Pro Gly Gly Ser Cys Met Ala Ala Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu  
 50 55 60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 65 70 75 80

58332-B2

Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
85 90 95

Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr  
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Tyr Pro Glu Val  
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu  
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Leu Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
260 265

<210> 48

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 48

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15



Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
 50 55 60

Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr Val Gln Arg  
 85

<210> 49

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 49

His Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp  
 1 5 10 15

Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val  
 20 25 30

Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr  
 35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg Ala Ala Val Asp  
 50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe Thr  
 65 70 75

<210> 50

<211> 74

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 50

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg  
 1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly  
 20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp  
 35 40 45

Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr  
 50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
 65 70

&lt;210&gt; 51

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 51

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu

&lt;210&gt; 52

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 52

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg  
 1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly  
 20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Gln Tyr Trp  
 35 40 45

Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg Ala Ala Val Asp Thr  
 50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70

&lt;210&gt; 53

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 53

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg  
 1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly  
 20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp  
 35 40 45

Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr  
 50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70

&lt;210&gt; 54

&lt;211&gt; 78

58332-B2

<212> PRT

<213> Human HLA-DRB

<400> 54

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg  
1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly  
20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp  
35 40 45

Asn Ser Gln Lys Asp Ile Leu Glu Asp Arg Arg Ala Leu Val Asp Thr  
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe Thr Val  
65 70 75

<210> 55

<211> 79

<212> PRT

<213> Human HLA-DRB

<400> 55

His Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp  
1 5 10 15

Arg Tyr Phe Tyr His Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val  
20 25 30

Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr  
35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp  
50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val  
65 70 75

<210> 56

58332-B2

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 56

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg  
1 5 10 15

Tyr Phe Tyr His Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly  
20 25 30

Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp  
35 40 45

Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr  
50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70

<210> 57

<211> 83

<212> PRT

<213> Human HLA-DRB

<400> 57

Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val  
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Ser Val Arg Phe  
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro  
35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg  
50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser  
65 70 75 80

Phe Thr Val

&lt;210&gt; 58

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 58

Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val  
 1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg Phe  
 20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro  
 35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys Arg  
 50 55 60

Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser  
 65 70 75 80

Phe Thr

&lt;210&gt; 59

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 59

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Arg Phe Thr Val Gln Arg Arg  
85

<210> 60

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 60

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 61

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 61

Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

58332-B2

Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg  
50 55 60

Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
65 70 75 80

<210> 62

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 62

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Thr Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly

<210> 63

<211> 86

<212> PRT

<213> Human HLA-DRB



58332-B2

<400> 63

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15  
Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30  
Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45  
Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60  
Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
65 70 75 80  
Val Glu Ser Phe Thr Val  
85

<210> 64

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 64

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15  
Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30  
Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45  
Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60  
Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80  
Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 65

58332-B2

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 65

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Met Glu Leu  
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 66

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 66

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Val Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

58332-B2

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 67

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 67

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 68

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 68

Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val Arg  
20 25 30

58332-B2

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg  
50 55 60

Gln Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
65 70 75 80

<210> 69

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 69

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30

Val His Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly

<210> 70

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 70

Phe Leu Glu Gln Val Lys Pro Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

## 58332-B2

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
 50 55 60

Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

<210> 71

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 71

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val  
 85

<210> 72

<211> 89

<212> PRT

<213> Human HLA-DRB

58332-B2

<400> 72

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15  
Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30  
Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45  
Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60  
Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80  
Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 73

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 73

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15  
Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
20 25 30  
Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45  
Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60  
Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80  
Val Glu Ser Phe Thr Val Gln Arg Arg  
85

## 58332-B2

&lt;210&gt; 74

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 74

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 75

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 75

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Asp Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

## 58332-B2

Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
 85

<210> 76

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 76

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Gly Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
 85

<210> 77

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 77

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Asn  
 20 25 30



Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
 85

<210> 78

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 78

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr His Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 79

<211> 266

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 79

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Ala Ala Leu Thr  
 1 5 10 15  
 Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30  
 Gln Pro Arg Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn  
 35 40 45  
 Gly Thr Glu Arg Val Gln Phe Leu Glu Arg Leu Phe Tyr Asn Gln Glu  
 50 55 60  
 Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 65 70 75 80  
 Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile  
 85 90 95  
 Leu Glu Asp Arg Arg Gly Gln Val Asp Thr Val Cys Arg His Asn Tyr  
 100 105 110  
 Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Glu Val  
 115 120 125  
 Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140  
 Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160  
 Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
 165 170 175  
 Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190  
 Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205  
 Val Met Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
 210 215 220  
 Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

58332-B2

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
                                   245                                  250                                  255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
                                   260                                  265

<210> 80

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 80

Arg Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn Gly Thr  
   1                                  5                                  10                                  15

Glu Arg Val Gln Phe Leu Glu Arg Leu Phe Tyr Asn Gln Glu Glu Phe  
                                   20                                  25                                  30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
                                   35                                  40                                  45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu  
   50                                  55                                  60

Asp Arg Arg Gly Gln Val Asp Thr Val Cys Arg His Asn Tyr Gly Val  
   65                                  70                                  75                                  80

Gly

<210> 81

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 81

Arg Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn Gly Thr  
   1                                  5                                  10                                  15

Glu Arg Val Gln Phe Leu Glu Ser Leu Phe Tyr Asn Gln Glu Glu Phe  
                                   20                                  25                                  30

58332-B2

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Arg Arg Gly Gln Val Asp Thr Val Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly

<210> 82

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 82

Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Gln Phe Leu Glu Arg Leu Phe Tyr Asn Gln Glu Glu Phe Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
50 55 60

Arg Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70 75 80

Glu Ser

<210> 83

<211> 85

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 83

Arg Phe Leu Trp Gln Gly Lys Tyr Lys Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Gln Phe Leu Glu Arg Leu Phe Tyr Asn Gln Glu Glu Phe  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Arg Lys Asp Ile Leu Glu  
 50 55 60

Asp Arg Arg Gly Gln Val Asp Thr Val Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr  
 85

&lt;210&gt; 84

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 84

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
 20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
 Page 57

100 105 58332-B2 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
165 170 175

His Pro Ser

<210> 85

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 85

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr  
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
20 25 30

Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn  
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu  
50 55 60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe  
85 90 95

Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr  
100 105 110

58332-B2

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val  
 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu  
 165 170 175

Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser Glu Ser Ala  
 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 260 265

<210> 86

<211> 183

<212> PRT

<213> Human HLA-DRB

<400> 86

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val Thr Val  
85 90 95

Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu Val Cys  
100 105 110

Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg  
115 120 125

Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu Ile His  
130 135 140

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr Val Pro  
145 150 155 160

Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser Val Thr  
165 170 175

Ser Pro Leu Thr Val Glu Trp  
180

<210> 87

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 87

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60



58332-B2

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val  
85

<210> 88

<211> 188

<212> PRT

<213> Human HLA-DRB

<400> 88

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Ile Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
Page 61

165 58332-B2 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp  
180 185

<210> 89

<211> 101

<212> PRT

<213> Human HLA-DRB

<400> 89

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr Val  
100

<210> 90

<211> 76

<212> PRT

<213> Human HLA-DRB

<400> 90

Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn  
1 5 10 15

58332-B2

Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala  
20 25 30

Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys  
35 40 45

Asp Phe Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His  
50 55 60

Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg  
65 70 75

<210> 91

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 91

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 92

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 92

## 58332-B2

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 93

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 93

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly

<210> 94

58332-B2

<211> 90

<212> PRT

<213> Human HLA-DRB

<400> 94

Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly  
1 5 10 15

Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu  
20 25 30

Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu  
35 40 45

Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu  
50 55 60

Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly  
65 70 75 80

Val Val Glu Ser Phe Thr Val Gln Arg Arg  
85 90

<210> 95

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 95

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Val Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
Page 65

65 70 58332-B2 80  
75

Gly Glu Ser Phe Thr val  
85

<210> 96

<211> 80

<212> PRT

<213> Human HLA-DRB

**<400> 96**

Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg  
50 55 60

Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
65 70 75 80

<210> 97

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 97

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 98

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 98

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 99

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 99

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

## 58332-B2

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
                   20                                  25                                  30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
           35                                  40                                  45

Gly Arg Pro Ala Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
           50                                  55                                  60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
   65                                  70                                  75                                  80

Gly Glu Ser Phe Thr Val  
                                   85

<210> 100

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 100

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
   1                                  5                                  10                                  15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
                   20                                  25                                  30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
           35                                  40                                  45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
           50                                  55                                  60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
   65                                  70                                  75                                  80

Val Glu Ser Phe Thr Val Gln Arg Arg  
                                   85

<210> 101

<211> 80

<212> PRT



&lt;213&gt; Human HLA-DRB

&lt;400&gt; 101

Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg  
 20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
 35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp Arg  
 50 55 60

Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
 65 70 75 80

&lt;210&gt; 102

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 102

Arg Phe Leu Glu Tyr Ser Arg Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val  
 85

&lt;210&gt; 103

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 103

Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu His Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
 50 55 60

Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

Glu Ser Phe Thr

&lt;210&gt; 104

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 104

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Asp  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

58332-B2

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 105

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 105

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly

<210> 106

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 106

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

## 58332-B2

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 107

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 107

Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Ile Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
 50 55 60

Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

Glu Ser Phe Thr Val  
 85

<210> 108

<211> 89

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 108

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 109

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 109

Arg Phe Leu Glu Tyr Ser Met Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 110

58332-B2

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 110

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 111

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 111

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Arg Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 112

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 112

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg  
 85

<210> 113

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 113

Gly Asp Thr Gln Pro Arg Phe Leu Lys Gln Asp Lys Phe Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu His Arg Gly Ile Tyr  
 20 25 30

## 58332-B2

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln  
 50 55 60

Lys Asp Phe Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Val Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Glu Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Met Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
 195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
 210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 225 230 235

<210> 114

<211> 266

<212> PRT

<213> Human HLA-DRB



&lt;400&gt; 114

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr  
 1 5 10 15  
 Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30  
 Arg Pro Arg Phe Leu Glu Glu Val Lys Phe Glu Cys His Phe Phe Asn  
 35 40 45  
 Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Arg Val His Asn Gln Glu  
 50 55 60  
 Glu Tyr Ala Arg Tyr Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 65 70 75 80  
 Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
 85 90 95  
 Leu Glu Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
 100 105 110  
 Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val  
 115 120 125  
 Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140  
 Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160  
 Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu  
 165 170 175  
 Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190  
 Val Pro Gln Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205  
 Val Met Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
 210 215 220  
 Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240  
 Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
 Page 77

245 58332-B2 250 255

Ser Gly Leu Pro Pro Thr Gly Phe Leu Ser  
260 265

<210> 115

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 115

Arg Phe Leu Glu Glu Val Lys Phe Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg Arg Val His Asn Gln Glu Glu Tyr  
20 25 30

Ala Arg Tyr Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 116

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 116

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr  
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
20 25 30

58332-B2  
 Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn  
           35                                  40                                  45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu  
           50                                  55                                  60

Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr  
           65                                  70                                  75                                  80

Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe  
                                   85                                  90                                  95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
                                   100                                  105                                  110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val  
                                   115                                  120                                  125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
           130                                  135                                  140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
           145                                  150                                  155                                  160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu  
                                   165                                  170                                  175

Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
                                   180                                  185                                  190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
                                   195                                  200                                  205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
           210                                  215                                  220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
           225                                  230                                  235                                  240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
                                   245                                  250                                  255

Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser  
                                   260                                  265

<210> 117

<211> 101

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 117

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
 20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val  
 100

&lt;210&gt; 118

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 118

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

58332-B2

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 119

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 119

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 120

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 120

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
Page 81

20

25

30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Phe Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
 195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
 210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser  
 225 230 235

<210> 121

<211> 266

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 121

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr  
 1 5 10 15  
 Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30  
 Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn  
 35 40 45  
 Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu  
 50 55 60  
 Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr  
 65 70 75 80  
 Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe  
 85 90 95  
 Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
 100 105 110  
 Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val  
 115 120 125  
 Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140  
 Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160  
 Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu  
 165 170 175  
 Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190  
 Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205  
 Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
 210 215 220  
 Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

58332-B2

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser  
260 265

<210> 122

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 122

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg  
85 90

<210> 123

<211> 103

<212> PRT

<213> Human HLA-DRB

<400> 123

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
20 25 30



Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val Tyr Pro  
 100

<210> 124

<211> 90

<212> PRT

<213> Human HLA-DRB

<400> 124

Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys His Phe Phe Asn Gly  
 1 5 10 15

Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu  
 20 25 30

Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu  
 35 40 45

Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu  
 50 55 60

Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly  
 65 70 75 80

Val Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85 90

<210> 125

<211> 85

<212> PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 125

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
 65 70 75 80

Val Glu Ser Phe Thr  
 85

&lt;210&gt; 126

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 126

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg  
 20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
 35 40 45

Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys  
 50 55 60

Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
 65 70 75 80

Ser Phe Thr Val Gln Arg Arg  
85

<210> 127

<211> 79

<212> PRT

<213> Human HLA-DRB

<400> 127

Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp  
1 5 10 15

Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val  
20 25 30

Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr  
35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp Arg Arg Ala Ala Val Asp  
50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val  
65 70 75

<210> 128

<211> 79

<212> PRT

<213> Human HLA-DRB

<400> 128

Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp  
1 5 10 15

Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val  
20 25 30

Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr  
35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp Arg Arg Ala Ala Val Asp  
50 55 60

## 58332-B2

Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val  
 65 70 75

<210> 129

<211> 77

<212> PRT

<213> Human HLA-DRB

<400> 129

His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe  
 1 5 10 15

His Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe  
 20 25 30

Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser  
 35 40 45

Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys  
 50 55 60

Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln  
 65 70 75

<210> 130

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 130

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg  
 1 5 10 15

Tyr Phe His Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly  
 20 25 30

Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp  
 35 40 45

Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr  
 50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70

<210> 131

<211> 79

<212> PRT

<213> Human HLA-DRB

<400> 131

Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp  
1 5 10 15

Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val  
20 25 30

Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr  
35 40 45

Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Glu Arg Ala Ala Val Asp  
50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val  
65 70 75

<210> 132

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 132

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg  
1 5 10 15

Tyr Phe Tyr Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly  
20 25 30

Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp  
35 40 45

Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr  
Page 89

50

55

58332-B2  
60

Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70

&lt;210&gt; 133

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 133

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Phe  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

&lt;210&gt; 134

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 134

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His  
20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45 58332-B2

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg  
 85 90

<210> 135

<211> 93

<212> PRT

<213> Human HLA-DRB

<400> 135

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
 20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg  
 85 90

<210> 136

<211> 112

<212> PRT

<213> Human HLA-DRB

<400> 136

## 58332-B2

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
 20 25 30

Asn Gln Glu Glu Asp Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
 100 105 110

<210> 137

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 137

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85



&lt;210&gt; 138

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 138

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His  
 20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
 100 105 110

&lt;210&gt; 139

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 139

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
 Page 93

35

40

45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
 50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 140

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 140

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
 50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 141

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 141

58332-B2

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu  
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
65 70 75 80

Ser Phe Thr Val Gln  
85

<210> 142

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 142

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu  
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala Val Glu  
65 70 75 80

<210> 143

<211> 82

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 143

Arg Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu

&lt;210&gt; 144

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 144

Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly  
 1 5 10 15

Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu  
 20 25 30

Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu  
 35 40 45

Leu Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu  
 50 55 60

Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly  
 65 70 75 80

Val Gly

58332-B2

<210> 145

<211> 83

<212> PRT

<213> Human HLA-DRB

<400> 145

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Asp Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp  
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70 75 80

Glu Ser Phe

<210> 146

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 146

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
Page 97

50

55

58332-B2  
60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

&lt;210&gt; 147

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 147

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg  
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
65 70 75 80

&lt;210&gt; 148

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 148

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp  
 50 55 60

Arg Arg Ala Ala Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

Glu

<210> 149

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 149

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 150

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 150

## 58332-B2

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 151

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 151

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 152



58332-B2

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 152

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 153

<211> 120

<212> PRT

<213> Human HLA-DRB

<400> 153

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Glu Glu His Trp Asn Ser Gln  
50 55 60

Lys Asp Ile Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
Page 101



58332-B2

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg  
 20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
 35 40 45

Pro Asp Glu Asp Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg  
 50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
 65 70 75 80

Ser Phe Thr Val Gln Arg  
 85

<210> 156

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 156

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 157

<211> 86

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 157

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg  
 20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
 35 40 45

Pro Asp Glu Asp Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg  
 50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
 65 70 75 80

Ser Phe Thr Val Gln Arg  
 85

&lt;210&gt; 158

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 158

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 159

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 159

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 160

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 160

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
Page 105

35

40

45

Gly Arg Pro Asp Glu Gly Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 161

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 161

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 162

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 162

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val

<210> 163

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 163

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp  
 50 55 60

Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 164

<211> 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 164

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 165

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 165

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu  
 50 55 60

Glu Leu Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr  
 65 70 75 80



58332-B2

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile  
85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
100 105 110

Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val  
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu  
165 170 175

Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser  
260 265

<210> 166

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 166

Met Val Cys Leu Arg Leu Pro Gly Gly Ser Cys Met Ala Val Leu Thr  
Page 109

1

5

10

15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
20 25 30

Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn  
35 40 45

Gly Thr Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu  
50 55 60

Glu Leu Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr  
65 70 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile  
85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
100 105 110

Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val  
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu  
165 170 175

Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser 58332-B2  
 260 265

<210> 167

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 167

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu  
 20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
 65 70 75 80

Val

<210> 168

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 168

Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu Leu  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
 35 40 45

58332-B2

Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp  
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala Val  
65 70 75 80

Glu

<210> 169

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 169

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu  
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
85

<210> 170

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 170

Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg Val  
1 5 10 15

Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu Leu Arg Phe  
 20 30

Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro  
 35 40 45

Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Arg Arg  
 50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala Val  
 65 70 75

<210> 171

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 171

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Phe  
 20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 172

<211> 209

<212> PRT

<213> Human HLA-DRB

58332-B2

<400> 172

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg His Phe His  
20 25 30

Asn Gln Glu Glu Leu Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln  
50 55 60

Lys Asp Ile Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly

<210> 173

<211> 174

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 173

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Leu  
 20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Gly  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val Thr Val  
 85 90 95

Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu Val Cys  
 100 105 110

Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg  
 115 120 125

Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser Thr Gly Leu Ile His  
 130 135 140

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr Val Pro  
 145 150 155 160

Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 165 170

&lt;210&gt; 174

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 174

## 58332-B2

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Leu  
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 175

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 175

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His  
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
100 105 110



Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
 195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
 210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser  
 225 230 235

<210> 176

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 176

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 Page 117

65 70 58332-B2 80  
75

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 177

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 177

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His  
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Arg Gly Phe Leu Ser  
225 230 235

<210> 178

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 178

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg  
85

<210> 179

<211> 101

<212> PRT

<213> Human HLA-DRB

<400> 179

## 58332-B2

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
 20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Ile Leu Glu Asp Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val  
 100

<210> 180

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 180

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg  
 20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
 35 40 45

Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Lys  
 50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
 65 70 75 80

Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 181

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 181

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
 20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val  
 100

&lt;210&gt; 182

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 182

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 Page 121

35

40

58332-B2

45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 183

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 183

Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr  
 1 5 10 15

Phe His Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu  
 20 25 30

Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn  
 35 40 45

Ser Gln Lys Asp Ile Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr  
 50 55 60

Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe Thr  
 65 70 75

&lt;210&gt; 184

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 184

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

58332-B2

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
                   20                  25                  30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
           35                  40                  45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
           50                  55                  60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
   65                  70                  75                  80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
                   85

<210> 185

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 185

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
   1                  5                  10                  15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
                   20                  25                  30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
           35                  40                  45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
           50                  55                  60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
   65                  70                  75                  80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
                   85

<210> 186

<211> 85

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 186

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
 50 55 60

Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr Val  
 85

&lt;210&gt; 187

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 187

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln  
 50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr Val  
 85



<210> 188  
 <211> 89  
 <212> PRT  
 <213> Human HLA-DRB

<400> 188

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15  
 Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30  
 Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45  
 Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60  
 Asp Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80  
 Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 189  
 <211> 89  
 <212> PRT  
 <213> Human HLA-DRB

<400> 189

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15  
 Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30  
 Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45  
 Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 Page 125

50

55

58332-B2  
60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

&lt;210&gt; 190

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 190

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

&lt;210&gt; 191

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 191

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

58332-B2

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
                   20                  25                  30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
           35                  40                  45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
           50                  55                  60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
   65                  70                  75                  80

Gly Glu Ser Phe Thr Val  
                   85

<210> 192

<211> 75

<212> PRT

<213> Human HLA-DRB

<400> 192

Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu  
   1                  5                  10                  15

Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp  
           20                  25                  30

Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu  
           35                  40                  45

Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val  
           50                  55                  60

Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
   65                  70                  75

<210> 193

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 193

58332-B2

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15  
 Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30  
 Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45  
 Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60  
 Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80  
 Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 194

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 194

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15  
 Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val  
 20 25 30  
 Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
 35 40 45  
 Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
 50 55 60  
 Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80  
 Glu Ser Phe Thr

<210> 195

58332-B2

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 195

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val  
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe  
20 25 30

Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro  
35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu Arg  
50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Asp Glu Ser  
65 70 75 80

Phe Thr

<210> 196

<211> 114

<212> PRT

<213> Human HLA-DRB

<400> 196

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg  
Page 129

65

70

75

80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
                             85                            90                            95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
                             100                            105                            110

Asn Leu

<210> 197

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 197

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
   1                            5                            10                            15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
                             20                            25                            30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
                             35                            40                            45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
                             50                            55                            60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
   65                            70                            75                            80

Val Glu Ser Phe Thr Val Gln Arg Arg  
                             85

<210> 198

<211> 108

<212> PRT

<213> Human HLA-DRB

<400> 198

58332-B2

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His  
 20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Ile Leu Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro  
 100 105

<210> 199

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 199

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
 85

&lt;210&gt; 200

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 200

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
 20 25 30

Asn Gln Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val  
 115

&lt;210&gt; 201

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 201

Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly  
 1 5 10 15

Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu  
 20 25 30



Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu  
 35 40 45

Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu  
 50 55 60

Glu Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly  
 65 70 75 80

Val Val Glu Ser Phe Thr Val Gln Arg Arg  
 85 90

<210> 202

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 202

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg  
 85

<210> 203

<211> 88

<212> PRT

<213> Human HLA-DRB

58332-B2

<400> 203

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
85

<210> 204

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 204

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu

&lt;210&gt; 205

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 205

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 206

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 206

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

58332-B2

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 207

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 207

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu  
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Arg Val Val Glu  
65 70 75 80

Ser Phe

<210> 208

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 208

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

58332-B2

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 209

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 209

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70 75 80

Glu Ser Phe Thr

<210> 210

<211> 89

<212> PRT

<213> Human HLA-DRB

58332-B2

<400> 210

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Val Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 211

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 211

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

## 58332-B2

&lt;210&gt; 212

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 212

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Lys Arg Ala Ala Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly

&lt;210&gt; 213

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 213

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

## 58332-B2

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val His Arg Arg  
 85

<210> 214

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 214

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Leu Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
 85

<210> 215

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 215

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30



58332-B2

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 216

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 216

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 217

<211> 81

<212> PRT

<213> Human HLA-DRB

58332-B2

<400> 217

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly

<210> 218

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 218

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Ser Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

58332-B2

<210> 219

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 219

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu  
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
65 70 75 80

Ser Phe Thr Val Gln Arg Arg  
85

<210> 220

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 220

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

58332-B2

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 221

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 221

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 222

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 222

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30

58332-B2

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 223

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 223

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 224

<211> 80

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 224

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg  
 20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
 35 40 45

Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu  
 50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
 65 70 75 80

&lt;210&gt; 225

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 225

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Val Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 226

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 226

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 227

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 227

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 228

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 228

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg  
85

<210> 229

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 229

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His  
20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45



58332-B2

Ala Val Thr Glu Leu Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg  
85 90

<210> 230

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 230

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val

<210> 231

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 231

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
Page 149

1                      5                      10                      15  
 Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His  
                     20                      25                      30  
 Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
                     35                      40                      45  
 Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
                     50                      55                      60  
 Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
                     65                      70                      75                      80  
 His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg  
                     85                      90

<210> 232

<211> 94

<212> PRT

<213> Human HLA-DRB

<400> 232

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1                      5                      10                      15  
 Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His  
                     20                      25                      30  
 Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
                     35                      40                      45  
 Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
                     50                      55                      60  
 Lys Asp Leu Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg  
                     65                      70                      75                      80  
 His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg  
                     85                      90

<210> 233

<211> 89

58332-B2

<212> PRT

<213> Human HLA-DRB

<400> 233

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15  
Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30  
Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45  
Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60  
Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80  
Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 234

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 234

Phe Leu Glu Tyr Ser Thr Ser Glu Cys Gln Phe Phe Asn Gly Thr Glu  
1 5 10 15  
Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val  
20 25 30  
Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
35 40 45  
Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg  
50 55 60  
Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
65 70 75 80

58332-B2

Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 235

<211> 88

<212> PRT

<213> Human HLA-DRB

<400> 235

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 236

<211> 78

<212> PRT

<213> Human HLA-DRB

<400> 236

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val  
1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg Phe  
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro  
35 40 45

58332-B2

Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg Arg Arg  
50 55 60

Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70 75

<210> 237

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 237

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Asp Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg  
50 55 60

Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
65 70 75 80

Glu Ser Phe Thr Val Gln Arg  
85

<210> 238

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 238

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val  
Page 153

20

25

30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
 50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

Glu Ser Phe Thr Val Gln Arg  
 85

<210> 239

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 239

Phe Leu Glu Gln Val Lys His Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg  
 50 55 60

Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr Val Gln Arg  
 85

<210> 240

<211> 78

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 240

Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg Val  
 1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg Phe  
 20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro  
 35 40 45

Asp Glu Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg Arg Arg  
 50 55 60

Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75

&lt;210&gt; 241

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 241

Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu  
 1 5 10 15

Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val  
 20 25 30

Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr  
 35 40 45

Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp Arg Arg Ala Leu Val Asp  
 50 55 60

Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70

&lt;210&gt; 242

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 242

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val  
 1 5 10 15

Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe  
 20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro  
 35 40 45

Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg Arg  
 50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75

&lt;210&gt; 243

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 243

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg  
 50 55 60

Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

Glu Ser Phe Thr Val  
 85

&lt;210&gt; 244



58332-B2

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 244

Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu Arg Val Arg Phe  
1 5 10 15

Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg Phe Asp Ser  
20 25 30

Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala  
35 40 45

Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg Ala Leu  
50 55 60

Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser Phe Thr  
65 70 75 80

Val Gln

<210> 245

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 245

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Glu  
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
Page 157

65 70 58332-B2 80  
75

<210> 246

<212> PRT

<213> Human HLA-DRB

$\langle 400 \rangle$  246

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
          35               40               45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
85

**<210> 247**

**<211> 86**

<212> PRT

<213> Human HLA-DRB

<400> 247

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val  
1 5 10 15

Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg Phe  
20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro  
35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg Arg Arg  
 50 55 60 58332-B2

Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu Ser  
 65 70 75 80

Phe Thr Val Gln Arg Arg  
 85

<210> 248

<211> 90

<212> PRT

<213> Human HLA-DRB

<400> 248

Gly Asp Thr Arg Pro Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His  
 20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr  
 85 90

<210> 249

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 249

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

58332-B2

Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg  
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
65 70 75 80

<210> 250

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 250

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys  
50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
65 70 75 80

<210> 251

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 251

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

58332-B2

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 252

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 252

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 253

<211> 96

<212> PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 253

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln  
 50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Lys Val Thr Val Tyr  
 85 90 95

&lt;210&gt; 254

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 254

Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val  
 1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Tyr Val Arg Phe  
 20 25 30

Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro  
 35 40 45

Ala Ala Glu His Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg  
 50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75

&lt;210&gt; 255

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 255

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Gln Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 256

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 256

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

58332-B2

Asp Arg Arg Ala Leu val Asp Thr Tyr Cys Arg His Asn Tyr Gly val  
65 70 75 80

Gly Glu Ser Phe Thr val Gln Arg Arg  
85

<210> 257

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 257

Arg Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30

val Arg Phe Asp Ser Asp val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Arg Arg Arg Ala Glu val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
65 70 75 80

val

<210> 258

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 258

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Asn  
20 25 30



58332-B2

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 259

<211> 84

<212> PRT

<213> Human HLA-DRB

<400> 259

Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70 75 80

Glu Ser Phe Thr

<210> 260

<211> 84

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 260

Phe Leu Glu Tyr Ser Thr Gly Glu Cys Tyr Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg  
 50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr

&lt;210&gt; 261

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 261

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Arg Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

58332-B2

<210> 262

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 262

Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Arg  
50 55 60

Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
65 70 75 80

Ser Phe Thr Val Gln Arg  
85

<210> 263

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 263

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Val Arg Phe Asp Ser Asp Val Arg Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 266

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 266

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys Gln Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 267

<211> 89

<212> PRT

<213> Human HLA-DRB

58332-B2

<400> 267

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Th  
1 5 10 15  
Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30  
Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45  
Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60  
Arg Arg Arg Ala Glu Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80  
Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 268

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 268

Arg Phe Leu Glu Tyr Pro Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15  
Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30  
Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45  
Gly Arg Pro Ala Ala Glu His Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60  
Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80  
Val Glu Ser Phe Thr Val Gln Arg Arg  
85

&lt;210&gt; 269

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 269

Arg Phe Leu Glu Tyr Ser Thr Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 270

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 270

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ser Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu  
 50 55 60

## 58332-B2

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr  
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile  
85 90 95

Leu Glu Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val  
115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
145 150 155 160

Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser Thr Gly Leu  
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
260 265

<210> 271

<211> 88

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 271

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
 85

&lt;210&gt; 272

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 272

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg  
 85

&lt;210&gt; 273



&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 273

Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr  
 20 25 30

Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Ile Leu Glu Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln  
 85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
 115 120 125

Val Arg Trp Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser  
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
 195 200 205

58332-B2

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
 210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 225 230 235

<210> 274

<211> 73

<212> PRT

<213> Human HLA-DRB

<400> 274

Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg  
 1 5 10 15

Tyr Phe Tyr Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly  
 20 25 30

Glu Phe Arg Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp  
 35 40 45

Asn Ser Gln Lys Asp Ile Leu Glu Gln Ala Arg Ala Ala Val Asp Thr  
 50 55 60

Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70

<210> 275

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 275

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly

<210> 276

<211> 98

<212> PRT

<213> Human HLA-DRB

<400> 276

Gly Asp Thr Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Asp Arg His Phe Tyr  
20 25 30

Asn Gln Glu Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Ile Leu Glu Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln  
85 90 95

Pro Lys

<210> 277

<211> 85

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 277

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Gln  
 50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr Val  
 85

&lt;210&gt; 278

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 278

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
 50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser Phe Thr Val Gln Arg  
 85

&lt;210&gt; 279

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 279

Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val  
 1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val Arg Phe  
 20 25 30

Asp Ser Asp Val Gly Glu Phe Arg Ala Ala Thr Glu Leu Gly Arg Pro  
 35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln Ala Arg  
 50 55 60

Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
 65 70 75

&lt;210&gt; 280

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 280

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln  
 50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
 65 70 75 80

Glu Ser

&lt;210&gt; 281

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 281

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asn Ile Leu Glu  
 50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 282

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 282

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Phe Gln Ala Val Thr Glu Leu  
 35 40 45

58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 283

<211> 82

<212> PRT

<213> Human HLA-DRB

<400> 283

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Phe Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp  
50 55 60

Glu Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val  
65 70 75 80

Glu Ser

<210> 284

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 284

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

## 58332-B2

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 285

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 285

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr  
1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
20 25 30

Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn  
35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu  
50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe  
85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val  
Page 181



115

120

125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser Thr Gly Leu  
 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 260 265

<210> 286

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 286

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr  
 85

<210> 287

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 287

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu  
 50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
 85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
 100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val  
 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

58332-B2

Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser Thr Gly Leu  
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
260 265

<210> 288

<211> 80

<212> PRT

<213> Human HLA-DRB

<400> 288

Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Asp  
50 55 60

Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70 75 80

<210> 289

&lt;211&gt; 262

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 289

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Thr Ala Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu  
 50 55 60

Glu Ser Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe  
 85 90 95

Leu Glu Asp Arg Ala Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
 100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val  
 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

Phe Leu Asn Gly Gln Glu Glu Lys Ala Gly Met Val Ser Thr Gly Leu  
 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
 Page 185

210

215

58332-B2  
220

Gln Ser Lys Met Leu Ser Gly val Gly Gly Phe val Leu Gly Leu Leu  
 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
 245 250 255

Ser Gly Leu Gln Pro Thr  
 260

&lt;210&gt; 290

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 290

Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu Arg Val  
 1 5 10 15

Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser val Arg Phe  
 20 25 30

Asp Ser Asp val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg Pro  
 35 40 45

Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Arg Arg  
 50 55 60

Ala Leu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75

&lt;210&gt; 291

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 291

Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser Val Arg  
 20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
 35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Asp Arg  
 50 55 60

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
 65 70 75 80

<210> 292

<211> 86

<212> PRT

<213> Human HLA-DRB

<400> 292

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Pro Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Ser  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val  
 85

<210> 293

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 293

## 58332-B2

Arg Phe Leu Trp Gln Pro Lys Arg Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Asp Arg Tyr Phe Tyr Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 294

<211> 188

<212> PRT

<213> Human HLA-DRB

<400> 294

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His  
 20 25 30

Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Gln Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Thr Ser Ala Leu Thr Val Glu Trp  
 180 185

<210> 295

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 295

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Ser Leu Ala Ala Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Arg Leu Ala Phe Ala Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu  
 50 55 60

Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 65 70 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu  
 85 90 95

Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr  
 100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Gln Val  
 Page 189



115

120

125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205

Val Thr Ser Ala Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 260 265

<210> 296

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 296

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Ser Leu Ala Ala Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Arg Leu Ala Phe Ala Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn  
 35 40 45

58332-B2

Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu  
50 55 60

Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
65 70 75 80

Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu  
85 90 95

Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr  
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Gln Val  
115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Val Thr Ser Ala Leu Thr Val Glu Trp Arg Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
260 265

<210> 297

<211> 88

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 297

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His  
 20 25 30

Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser  
 85

&lt;210&gt; 298

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 298

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
 20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly

&lt;210&gt; 299

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 299

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Cys Lys Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His  
 20 25 30

Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser  
 85

&lt;210&gt; 300

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 300

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe  
 20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 Page 193

50

55

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser

&lt;210&gt; 301

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 301

Arg Phe Ser Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr  
85

&lt;210&gt; 302

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 302

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

58332-B2

Glu Arg Val Arg Tyr Leu Asn Arg Tyr Phe His Asn Gln Glu Glu Phe  
                   20                  25                  30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
           35                  40                  45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
           50                  55                  60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
   65                  70                  75                  80

Gly Glu Ser Phe Thr Val Gln Arg  
                   85

<210> 303  
 <211> 81  
 <212> PRT  
 <213> Human HLA-DRB

<400> 303

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
   1                  5                  10                  15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Phe  
           20                  25                  30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
           35                  40                  45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
           50                  55                  60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
   65                  70                  75                  80

Gly

<210> 304  
 <211> 81  
 <212> PRT  
 <213> Human HLA-DRB

&lt;400&gt; 304

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Tyr  
 20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly

&lt;210&gt; 305

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 305

Arg Phe Leu Glu Leu Arg Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Tyr Leu Asp Arg Tyr Phe His Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg  
 85

&lt;210&gt; 306

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 306

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Ser Leu Ala Ala Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Arg Leu Ala Phe Ala Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu  
 50 55 60

Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg  
 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
 85 90 95

Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr  
 100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val His Pro Gln Val  
 115 120 125

Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190

Phe Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 Page 197



195

200

58332-B2

205

Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser Glu Ser Ala  
 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
 245 250 255

Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 260 265

&lt;210&gt; 307

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 307

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg His Phe His  
 20 25 30

Asn Gln Glu Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Arg Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Gln Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
 195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
 210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 225 230 235

<210> 308

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 308

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr  
 20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly

<210> 309  
 <211> 88  
 <212> PRT  
 <213> Human HLA-DRB

<400> 309

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15  
 Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr  
 20 25 30  
 Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45  
 Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60  
 Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80  
 Gly Glu Ser Phe Thr Val Gln Arg  
 85

<210> 310  
 <211> 87  
 <212> PRT  
 <213> Human HLA-DRB

<400> 310

Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15  
 Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Ser Val Arg  
 20 25 30  
 Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu Gly Arg  
 35 40 45  
 Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys  
 50 55 60

58332-B2

Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
65 70 75 80

Ser Phe Thr Val Gln Arg Arg  
85

<210> 311

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 311

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr  
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 312

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 312

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Tyr  
Page 201

20

25

30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln  
 85

<210> 313

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 313

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Asn  
 20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly

<210> 314

<211> 80

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 314

Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
 1 5 10 15

Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr Ala Arg  
 20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu Gly Arg  
 35 40 45

Pro Val Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln Lys  
 50 55 60

Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
 65 70 75 80

&lt;210&gt; 315

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 315

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr  
 20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Ser Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly

&lt;210&gt; 316

&lt;211&gt; 84

58332-B2

<212> PRT

<213> Human HLA-DRB

<400> 316

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr  
20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe

<210> 317

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 317

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg His Phe His  
20 25 30

Asn Gln Glu Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg  
65 70 75 80

58332-B2

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
85 90 95

Pro Gln Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
225 230 235

<210> 318

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 318

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg His Phe His  
20 25 30

Asn Gln Glu Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
Page 205



35

40

Ala Val Arg Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
 50 55 60

Lys Asp Ile Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val His  
 85 90 95

Pro Gln Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Ser Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
 195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
 210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Phe Leu Ser  
 225 230 235

&lt;210&gt; 319

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 319

Arg Phe Leu Gln Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr  
 20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 320

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 320

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Leu Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr  
 20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg  
 85

<210> 321

<211> 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 321

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Tyr  
 20 25 30

Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Arg Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Ala Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 322

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 322

Gly Asp Thr Arg Pro Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu Glu Arg Tyr Phe His  
 20 25 30

Asn Gln Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Gly val val Glu Ser Phe Thr val Gln Arg Arg val His  
85 90 95

Pro Gln Val Thr val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu val Cys Ser val Ser Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Thr Gly val val Ser  
130 135 140

Thr Gly Leu Ile His Asn Gly Asp Trp Thr Phe Gln Thr Leu val Met  
145 150 155 160

Leu Glu Thr val Pro Arg Ser Gly Glu val Tyr Thr Cys Gln val Glu  
165 170 175

His Pro Ser val Thr Ser Pro Leu Thr val Glu Trp  
180 185

<210> 323

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 323

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe  
20 25 30

val Arg Phe Asp Ser Asp val Gly Glu Tyr Arg Ala val Thr Glu Leu  
35 40 45

Gly Arg Pro val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
50 55 60

Gln Lys Arg Gly Gln val Asp Asn Tyr Cys Arg His Asn Tyr Gly val  
65 70 75 80

val Glu Ser Phe Thr val Gln Arg Arg

&lt;210&gt; 324

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 324

Arg Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu Glu Arg His Phe His Asn Gln Glu Glu Phe  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Lys Arg Gly Gln Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Val

&lt;210&gt; 325

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 325

Phe Leu Glu Leu Leu Lys Ser Glu Cys His Phe Phe Asn Gly Thr Glu  
 1 5 10 15

Arg Val Arg Phe Leu Glu Arg Tyr Phe His Asn Gln Glu Glu Phe Val  
 20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
 35 40 45

Arg Pro Val Ala Glu Ser Trp Asn Ser Gln Lys Asp Leu Leu Glu Gln  
 50 55 60

Lys Arg Gly Arg Val Asp Asn Tyr Cys Arg His Asn Tyr Gly Val Gly  
 65 70 75 80

Glu Ser Phe Thr

<210> 326

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 326

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Ala Ala Leu Thr  
 1 5 10 15

Val Thr Leu Thr Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30

Gln Pro Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn  
 35 40 45

Gly Thr Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu  
 50 55 60

Glu Tyr Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr  
 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
 85 90 95

Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg Tyr Asn Tyr  
 100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val  
 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

58332-B2

Phe Arg Asn Ser Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Met Met Ser Pro Leu Thr Val Gln Trp Ser Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Thr Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Thr Gly Leu Leu Ser  
260 265

<210> 327

<211> 155

<212> PRT

<213> Human HLA-DRB

<400> 327

Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu Glu Tyr  
1 5 10 15

Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr Glu Leu  
20 25 30

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
35 40 45

Arg Arg Arg Ala Glu Val Gly Thr Tyr Cys Arg Tyr Asn Tyr Gly Val  
50 55 60

Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val Thr Val  
65 70 75 80

Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu Val Cys  
85 90 95

Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg  
 100 105 110

Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu Ile Gln  
 115 120 125

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr Val Pro  
 130 135 140

Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
 145 150 155

<210> 328

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 328

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Ala Ala Leu Thr  
 1 5 10 15

Val Thr Leu Thr Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30

Gln Pro Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn  
 35 40 45

Gly Thr Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu  
 50 55 60

Glu Tyr Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr  
 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
 85 90 95

Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg Tyr Asn Tyr  
 100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val  
 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 Page 213



58332-B2  
140

130

135

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Met Met Ser Pro Leu Thr Val Gln Trp Ser Ala Arg Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Thr Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu Gln Pro Thr Gly Leu Leu Ser  
260 265

<210> 329

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 329

Gly Asp Thr Gln Pro Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His  
1 5 10 15

Phe Leu Asn Gly Thr Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr  
20 25 30

Asn Gln Glu Glu Tyr Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

58332-B2

Lys Asp Leu Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg  
65 70 75 80

Tyr Asn Tyr Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln  
85 90 95

Pro Lys Val Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
165 170 175

His Pro Ser Met Met Ser Pro Leu Thr Val Gln Trp Ser Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Leu Gly Thr Gly Leu Phe Ile Tyr Phe Arg Asn Gln  
210 215 220

Lys Gly His Ser Gly Leu Gln Pro Thr Gly Leu Leu Ser  
225 230 235

<210> 330

<211> 266

<212> PRT

<213> Human HLA-DRB

<400> 330

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Cys Met Ala Ala Leu Thr  
1 5 10 15

Val Thr Leu Thr Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
20 25 30

## 58332-B2

Gln Pro Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn  
 35 40 45

Gly Thr Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu  
 50 55 60

Glu Tyr Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr  
 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu  
 85 90 95

Leu Glu Arg Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg Tyr Asn Tyr  
 100 105 110

Gly Val Val Glu Ser Phe Thr Val Gln Arg Arg Val Gln Pro Lys Val  
 115 120 125

Thr Val Tyr Pro Ser Lys Thr Gln Pro Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205

Met Met Ser Pro Leu Thr Val Gln Trp Ser Ala Arg Ser Glu Ser Ala  
 210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

Phe Leu Gly Thr Gly Leu Phe Ile Tyr Phe Arg Asn Gln Lys Gly His  
 245 250 255

Ser Gly Leu Gln Pro Thr Gly Leu Leu Ser  
 260 265

<210> 331

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 331

Arg Phe Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn Gly Thr  
 1 5 10 15

Glu Arg Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu Glu Tyr  
 20 25 30

Ala Arg Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Arg Arg Arg Ala Glu Val Asp Asn Tyr Cys Arg Tyr Asn Tyr Gly Val  
 65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
 85

&lt;210&gt; 332

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 332

Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn Gly Thr Glu Arg  
 1 5 10 15

Val Trp Asn Leu Ile Arg Tyr Ile Tyr Asn Gln Glu Glu Tyr Ala Arg  
 20 25 30

Tyr Asn Ser Asp Leu Gly Glu Tyr Gln Ala Val Thr Glu Leu Gly Arg  
 35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu Arg Arg  
 50 55 60

Arg Ala Glu Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Val Glu  
 Page 217

65

70

75

80

&lt;210&gt; 333

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (38)..(38)

&lt;223&gt; where X = Unknown

&lt;400&gt; 333

Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr Gln Pro Arg Phe  
 1 5 10 15

Leu Glu Gln Ala Lys Cys Glu Cys His Phe Leu Asn Gly Thr Glu Pro  
 20 25 30

Asp Gln Ile His Leu Xaa  
 35

&lt;210&gt; 334

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 334

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Tyr Met Ala Lys Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30

Arg Pro Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu  
 50 55 60

Glu Asp Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe  
85 90 95

Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
100 105 110

Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val  
115 120 125

Thr Val Tyr Pro Ala Arg Thr Gln Thr Leu Gln His His Asn Leu Leu  
130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
145 150 155 160

Phe Arg Asn Ser Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Thr  
180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Gln Ser Glu Ser Ala  
210 215 220

Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu Gly Leu Leu  
225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln Lys Gly His  
245 250 255

Ser Gly Leu His Pro Thr Gly Leu Val Ser  
260 265

<210> 335

<211> 85

<212> PRT

<213> Human HLA-DRB

58332-B2

<400> 335

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu Asp  
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
65 70 75 80

Gly Glu Ser Phe Thr  
85

<210> 336

<211> 237

<212> PRT

<213> Human HLA-DRB

<400> 336

Gly Asp Thr Arg Pro Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr  
20 25 30

Asn Gln Glu Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu  
85 90 95

58332-B2

Pro Lys Val Thr Val Tyr Pro Ala Arg Thr Gln Thr Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu  
115 120 125

Val Arg Trp Phe Arg Asn Ser Gln Glu Glu Lys Ala Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Gln Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met  
145 150 155 160

Leu Glu Thr Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu  
165 170 175

His Pro Ser Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Gln Ser  
180 185 190

Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln  
210 215 220

Lys Gly His Ser Gly Leu His Pro Thr Gly Leu Val Ser  
225 230 235

<210> 337

<211> 83

<212> PRT

<213> Human HLA-DRB

<400> 337

Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr Glu Arg  
1 5 10 15

Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn Val Arg  
20 25 30

Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly Arg  
35 40 45

Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu Asp Thr  
50 55 60



58332-B2

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu  
65 70 75 80

Ser Phe Thr

<210> 338

<211> 111

<212> PRT

<213> Human HLA-DRB

<400> 338

Gly Asp Thr Arg Pro Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr  
20 25 30

Asn Gln Glu Glu Asp Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Phe Leu Glu Asp Arg Arg Ala Leu Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu  
85 90 95

Pro Lys Val Thr Val Tyr Pro Ala Arg Thr Gln Thr Leu Gln His  
100 105 110

<210> 339

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 339

Pro Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly  
1 5 10 15

Thr Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu  
20 25 30

Asp Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu  
35 40 45

Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu  
50 55 60

Glu Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly  
65 70 75 80

Val Gly Glu Ser Phe Thr Val Gln Arg  
85

<210> 340

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 340

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu Asp  
20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
50 55 60

Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
65 70 75 80

Val Glu Ser Phe Thr Val Gln Arg Arg  
85

<210> 341

<211> 81

<212> PRT

&lt;213&gt; Human HLA-DRB

&lt;400&gt; 341

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu Asp  
 20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly

&lt;210&gt; 342

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Human HLA-DRB

&lt;220&gt;

&lt;221&gt; MISC\_FEATURE

&lt;222&gt; (167)..(167)

&lt;223&gt; where X = Unknown

&lt;400&gt; 342

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn  
 20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

## 58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 65 70 75 80

Gly Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val Thr Val  
 85 90 95

Tyr Pro Ala Arg Thr Gln Thr Leu Gln His His Asn Leu Leu Val Cys  
 100 105 110

Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp Phe Arg  
 115 120 125

Asn Ser Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu Ile Gln  
 130 135 140

Asn Gly Asp Trp Thr Phe Gln Thr Leu Val Met Leu Glu Arg Phe Thr  
 145 150 155 160

Pro Ala Lys Trp Ser Thr Xaa  
 165

<210> 343

<211> 81

<212> PRT

<213> Human HLA-DRB

<400> 343

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Asp Ile Tyr Asn Gln Glu Glu Asp  
 20 25 30

Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Asn Arg Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val  
 Page 225

65 70 58332-B2 75 80

Gly

**<210> 344**

<211> 81

<212> PRT

<213> Human HLA-DRB

**<220>**

<221> MISC\_FEATURE

<222> (81)..(81)

<223> where X = Unknown

**<400>    344**

Arg Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn  
20 25 30

Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu  
35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
50 55 60

Asp Arg Arg Ala Ala Val Asp Thr Tyr Cys Thr Gln Leu Arg Gly Trp  
65 70 75 80

**Xaa**

**<210> 345**

**<211> 266**

<212> PRT

<213> Human HLA-DRB

&lt;400&gt; 345

Met Val Cys Leu Lys Leu Pro Gly Gly Ser Tyr Met Ala Val Leu Thr  
 1 5 10 15

Val Thr Leu Met Val Leu Ser Ser Pro Leu Ala Leu Ala Gly Asp Thr  
 20 25 30

Arg Pro Cys Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn  
 35 40 45

Gly Thr Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu  
 50 55 60

Glu Asn Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr  
 65 70 75 80

Glu Leu Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile  
 85 90 95

Leu Glu Gln Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr  
 100 105 110

Gly Ala Val Glu Ser Phe Thr Val Gln Arg Arg Val Glu Pro Lys Val  
 115 120 125

Thr Val Tyr Pro Ala Arg Thr Gln Thr Leu Gln His His Asn Leu Leu  
 130 135 140

Val Cys Ser Val Asn Gly Phe Tyr Pro Gly Ser Ile Glu Val Arg Trp  
 145 150 155 160

Phe Arg Asn Gly Gln Glu Glu Lys Ala Gly Val Val Ser Thr Gly Leu  
 165 170 175

Ile Gln Asn Gly Asp Trp Thr Phe Gln Ile Leu Val Met Leu Glu Thr  
 180 185 190

Val Pro Arg Ser Gly Glu Val Tyr Thr Cys Gln Val Glu His Pro Ser  
 195 200 205

Val Thr Ser Pro Leu Thr Val Glu Trp Arg Ala Gln Ser Glu Ser Ala  
 210 215 220

Gln Ser Lys Met Leu Ser Gly Ile Gly Gly Phe Val Leu Gly Leu Leu  
 225 230 235 240

Phe Leu Gly Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln Lys Gly His  
 Page 227

245 58332-B2 250 255

Ser Gly Leu His Pro Thr Gly Leu Val Ser  
260 265

<210> 346

<211> 87

<212> PRT

<213> Human HLA-DRB

<400> 346

Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr Glu  
1 5 10 15

Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn Val  
20 25 30

Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg Ala Val Thr Glu Leu Gly  
35 40 45

Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Ile Leu Glu Gln  
50 55 60

Ala Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly  
65 70 75 80

Glu Ser Phe Thr Val Gln Arg  
85

<210> 347

<211> 85

<212> PRT

<213> Human HLA-DRB

<400> 347

Cys Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr  
1 5 10 15

Glu Arg Val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn  
20 25 30

val Arg Phe Asp Ser Asp val Gly Glu Tyr Arg Ala val Thr Glu Leu  
 35 40 45 58332-B2

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Phe Leu Glu  
 50 55 60

Gln Ala Arg Ala Ala val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
 65 70 75 80

val Glu Ser Phe Thr  
 85

<210> 348

<211> 89

<212> PRT

<213> Human HLA-DRB

<400> 348

Cys Phe Leu Gln Gln Asp Lys Tyr Glu Cys His Phe Phe Asn Gly Thr  
 1 5 10 15

Glu Arg val Arg Phe Leu His Arg Gly Ile Tyr Asn Gln Glu Glu Asn  
 20 25 30

val Arg Phe Asp Ser Asp val Gly Glu Tyr Arg Ala val Thr Glu Leu  
 35 40 45

Gly Arg Pro Asp Ala Glu Tyr Trp Asn Ser Gln Lys Asp Leu Leu Glu  
 50 55 60

Gln Arg Arg Ala Ala val Asp Thr Tyr Cys Arg His Asn Tyr Gly Ala  
 65 70 75 80

val Glu Ser Phe Thr val Gln Arg Arg  
 85

<210> 349

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 349



58332-B2

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp  
1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His  
20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly  
35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val  
50 55 60

Asp Lys Ala Asn Leu Glu Ile Leu Ile Lys Arg Ser Asn Asn Thr Pro  
65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val  
85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser  
100 105 110

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr  
115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe  
130 135 140

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr  
145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His  
165 170 175

Trp Glu Phe Glu Ala Arg Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr  
180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly  
195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu Arg  
210 215 220

Arg Gly Pro Leu  
225

<210> 350

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Swine SLA-DRA

&lt;400&gt; 350

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp  
 1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His  
 20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly  
 35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val  
 50 55 60

Asp Lys Ala Asn Leu Glu Ile Met Ile Lys Arg Ser Asn Asn Thr Pro  
 65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val  
 85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser  
 100 105 110

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr  
 115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe  
 130 135 140

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr  
 145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His  
 165 170 175

Trp Glu Phe Glu Ala Gln Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr  
 180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly  
 195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu His  
 Page 231

210

215

58332-B2  
220Arg Gly Pro Leu  
225

&lt;210&gt; 351

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Swine SLA-DRA

&lt;400&gt; 351

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp  
1 5 10 15Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His  
20 25 30Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly  
35 40 45His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val  
50 55 60Asp Lys Ala Asn Leu Glu Ile Leu Ile Lys Arg Ser Asn Asn Thr Pro  
65 70 75 80Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val  
85 90 95Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser  
100 105 110Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr  
115 120 125Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe  
130 135 140Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr  
145 150 155 160Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His  
165 170 175

Trp Glu Phe Glu Ala Gln Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr  
 180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly  
 195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu His  
 210 215 220

Arg Gly Pro Leu  
 225

<210> 352

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 352

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp  
 1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His  
 20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly  
 35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val  
 50 55 60

Asp Lys Ala Asn Leu Glu Ile Leu Ile Lys Arg Ser Asn Asn Thr Pro  
 65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val  
 85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser  
 100 105 110

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr  
 115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe  
 130 135 140

## 58332-B2

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr  
145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His  
165 170 175

Trp Glu Phe Glu Ala Gln Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr  
180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly  
195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu Arg  
210 215 220

Arg Gly Pro Leu  
225

<210> 353

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 353

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp  
1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His  
20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly  
35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val  
50 55 60

Asp Lys Ala Asn Leu Glu Ile Met Ile Lys Arg Ser Asn Asn Thr Pro  
65 70 75 80

Asn Thr Asn Val Pro Pro Glu Val Thr Val Leu Ser Asp Lys Pro Val  
85 90 95

Glu Leu Gly Glu Pro Asn Ile Leu Ile Cys Phe Ile Asp Lys Phe Ser  
100 105 110

58332-B2

Pro Pro Val Val Asn Val Thr Trp Leu Arg Asn Gly Ser Pro Val Thr  
115 120 125

Arg Gly Val Ser Glu Thr Val Phe Leu Pro Arg Glu Asp His Leu Phe  
130 135 140

Arg Lys Phe His Tyr Leu Pro Phe Met Pro Ser Thr Glu Asp Val Tyr  
145 150 155 160

Asp Cys Gln Val Glu His Trp Gly Leu Asp Lys Pro Leu Leu Lys His  
165 170 175

Trp Glu Phe Glu Ala Gln Thr Pro Leu Pro Glu Thr Thr Glu Asn Thr  
180 185 190

Val Cys Ala Leu Gly Leu Ile Val Ala Leu Val Gly Ile Ile Val Gly  
195 200 205

Thr Val Leu Ile Ile Lys Gly Val Arg Lys Gly Asn Ala Thr Glu Arg  
210 215 220

Arg Gly Pro Leu  
225

<210> 354

<211> 228

<212> PRT

<213> Swine SLA-DRA

<400> 354

Val Glu Asn His Val Ile Ile Gln Ala Glu Phe Tyr Leu Ser Pro Asp  
1 5 10 15

Lys Ser Gly Glu Phe Met Phe Asp Phe Asp Gly Asp Glu Ile Phe His  
20 25 30

Val Asp Met Glu Lys Arg Glu Thr Val Trp Arg Leu Glu Glu Phe Gly  
35 40 45

His Phe Ala Ser Phe Glu Ala Gln Gly Ala Leu Ala Asn Ile Ala Val  
50 55 60

Asp Lys Ala Asn Leu Glu Ile Met Ile Lys Arg Ser Asn Asn Thr Pro  
Page 235



58332-B2

Asn Gly Glu Glu Phe val Arg Phe Asp Ser Asp Leu Gly Glu Phe Arg  
35 40 45

Ala val Thr Glu Leu Gly Arg Pro Asp Ala Lys Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Met Glu Gln Lys Arg Ala Val Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Arg Ile Leu Asp Thr Phe Leu Val Pro Arg Arg Ala Glu  
85 90 95

Pro Thr Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met  
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu  
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln  
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser  
225 230 235

<210> 356

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 356



## 58332-B2

Arg Asp Thr Pro Pro His Phe Leu Phe Leu Gly Lys Ala Glu Cys His  
 1 5 10 15  
 Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Asp Arg Tyr Phe Tyr  
 20 25 30  
 Asn Gly Asp Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
 35 40 45  
 Glu Val Thr Glu Phe Gly Arg Pro Asp Ala Lys Tyr Trp Asn Ser Gln  
 50 55 60  
 Lys Asp Phe Met Glu Gln Lys Arg Ala Glu Val Asp Thr Val Cys Arg  
 65 70 75 80  
 His Asn Tyr Glu Ile Leu Glu Thr Phe Leu Val Pro Arg Arg Ala Glu  
 85 90 95  
 Pro Arg Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
 100 105 110  
 Asn Leu Leu Val Cys Ser Val Thr Gly Thr Tyr Pro Gly His Val Glu  
 115 120 125  
 Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser  
 130 135 140  
 Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met  
 145 150 155 160  
 Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Thr Cys Arg Val Glu  
 165 170 175  
 His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser  
 180 185 190  
 Glu Ser Ala Gln Gly Lys Met Met Ser Gly Ile Gly Gly Phe Val Leu  
 195 200 205  
 Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln  
 210 215 220  
 Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser  
 225 230 235

&lt;210&gt; 357

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Swine SLA-DRB

&lt;400&gt; 357

Arg Asp Thr Pro Pro His Phe Leu Phe Leu Gly Lys Phe Glu Cys His  
 1 5 10 15

Phe Phe Asn Gly Thr Glu Gln Val Arg Leu Leu Glu Arg Gln Tyr Tyr  
 20 25 30

Asn Gly Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
 35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Asn Tyr Asn Ser Gln  
 50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg  
 65 70 75 80

His Asn Tyr Arg Thr Ser Asp Thr Phe Leu Val Pro Arg Arg Ala Glu  
 85 90 95

Pro Arg Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
 100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu  
 115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser  
 130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met  
 145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu  
 165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser  
 180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Ile Gly Gly Phe Val Leu  
 195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln  
 Page 239

210

215

58332-B2  
220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser  
225 230 235

&lt;210&gt; 358

&lt;211&gt; 237

&lt;212&gt; PRT

&lt;213&gt; Swine SLA-DRB

&lt;400&gt; 358

Arg Asp Thr Pro Pro His Phe Leu Tyr Leu Leu Lys Phe Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Gln Tyr Tyr  
20 25 30

Asn Gly Glu Glu Tyr Val Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Val Ala Lys Asp Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Arg Thr Ser Asp Thr Phe Leu Val Pro Arg Arg Ala Glu  
85 90 95

Pro Arg Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met  
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu  
165 170 175

58332-B2

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln  
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser  
225 230 235

<210> 359

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 359

Arg Asp Thr Pro Pro His Phe Leu His Leu Leu Lys Phe Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Leu Leu Glu Arg Gln Tyr Tyr  
20 25 30

Asn Gly Glu Glu Phe Leu Arg Phe Asp Ser Asp Val Gly Glu Tyr Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Asp Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Glu Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Arg Ile Leu Asp Thr Phe Leu Val Pro Arg Arg Ala Glu  
85 90 95

Pro Thr Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser  
130 135 140

## 58332-B2

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met val Met  
145 150 155 160

Leu Glu Thr val Pro Gln Ser Gly Glu val Tyr Ser Cys Arg val Glu  
165 170 175

His Pro Ser Leu Thr Ser Pro val Thr val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Ile Gly Gly Phe val Leu  
195 200 205

Gly Leu Leu Phe Ala val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln  
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser  
225 230 235

<210> 360

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 360

Arg Asp Ile Pro Pro His Phe Leu His Gln Leu Lys Phe Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg val Arg Leu Leu Gln Arg Asn Cys Tyr  
20 25 30

Asn Gly Glu Glu Tyr val Arg Phe Asp Ser Asp val Gly Glu Tyr Arg  
35 40 45

Ala val Thr Glu Leu Gly Arg Pro Asp Ala Lys Tyr Arg Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Ala Ala val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Arg Ile Leu Asp Thr Phe Leu val Pro Arg Arg Ala Glu  
85 90 95

Pro Thr val Thr val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

## 58332-B2

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met  
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu  
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln  
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser  
225 230 235

<210> 361

<211> 237

<212> PRT

<213> Swine SLA-DRB

<400> 361

Arg Asp Thr Pro Pro His Phe Leu His Leu Val Lys His Glu Cys Arg  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Leu Leu Leu Asp Arg Tyr Phe Tyr  
20 25 30

Asn Gly Glu Glu Phe Val Arg Phe Asp Ser Asp Val Gly Glu Phe Arg  
35 40 45

Ala Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Ile Leu Glu Asp Ser Arg Ala Ser Val Asp Thr Tyr Cys Ile  
Page 243

65 70 58332-B2 80  
75

His Asn Tyr Arg Ile Leu Asp Thr Phe Leu Val Pro Arg Arg Ala Glu  
85 90 95

Pro Thr Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met  
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu  
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Ile Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln  
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser  
225 230 235

<210> 362  
<211> 237  
<212> PRT  
<213> Swine SLA-DRB

<400> 362

Arg Asp Ile Pro Pro His Phe Phe Phe Met Gly Lys Ser Glu Cys His  
1 5 10 15

Phe Phe Asn Gly Thr Glu Arg Val Arg Tyr Leu Leu Lys Tyr Leu Tyr  
20 25 30

58332-B2

Asn Gly Glu Glu Phe Val Arg Phe Asp Ser Asp Leu Gly Glu Tyr Arg  
35 40 45

Glu Val Thr Glu Leu Gly Arg Pro Asp Ala Lys Tyr Trp Asn Ser Gln  
50 55 60

Lys Asp Leu Leu Glu Gln Arg Arg Glu Lys Val Asp Thr Tyr Cys Arg  
65 70 75 80

His Asn Tyr Gly Val Ser Asp Ser Phe Leu Val Pro Arg Arg Ala Glu  
85 90 95

Pro Thr Val Thr Val Tyr Pro Ala Lys Thr Gln Pro Leu Gln His His  
100 105 110

Asn Leu Leu Val Cys Ser Val Thr Gly Phe Tyr Pro Gly His Val Glu  
115 120 125

Val Arg Trp Phe Arg Asn Gly Gln Glu Glu Ala Ala Gly Val Val Ser  
130 135 140

Thr Gly Leu Ile Pro Asn Gly Asp Trp Thr Phe Gln Thr Met Val Met  
145 150 155 160

Leu Glu Thr Val Pro Gln Ser Gly Glu Val Tyr Ser Cys Arg Val Glu  
165 170 175

His Pro Ser Leu Thr Ser Pro Val Thr Val Glu Trp Arg Ala Arg Ser  
180 185 190

Glu Ser Ala Gln Gly Lys Met Met Ser Gly Val Gly Gly Phe Val Leu  
195 200 205

Gly Leu Leu Phe Ala Val Ala Gly Leu Phe Ile Tyr Phe Lys Asn Gln  
210 215 220

Lys Gly Arg Pro Ala Leu Gln Pro Thr Gly Leu Leu Ser  
225 230 235

<210> 363

<211> 232

<212> PRT

<213> Swine SLA-DQA

<400> 363



## 58332-B2

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr  
 1 5 10 15

Gln Ser Tyr Gly Pro Ser Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp  
 20 25 30

Glu Glu Phe Tyr Val Asp Leu Gly Lys Lys Glu Thr Val Trp Gln Leu  
 35 40 45

Pro Leu Phe Ser Lys Phe Arg Ser Phe Asp Pro Gln Gly Ala Leu Arg  
 50 55 60

Asn Ile Ala Thr Ala Lys His Asn Leu Asn Ile Leu Ile Lys Arg Ser  
 65 70 75 80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Pro  
 85 90 95

Lys Ser Pro Val Met Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val  
 100 105 110

Asp Asn Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly  
 115 120 125

His Ser Val Thr Glu Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn  
 130 135 140

Asp His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp  
 145 150 155 160

Asp Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro  
 165 170 175

Leu Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu  
 180 185 190

Thr Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly  
 195 200 205

Ile Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly  
 210 215 220

Pro Ser Arg His Gln Gly Ser Leu  
 225 230

<210> 364

&lt;211&gt; 232

&lt;212&gt; PRT

&lt;213&gt; Swine SLA-DQA

&lt;400&gt; 364

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr  
 1 5 10 15

Gln Ser Tyr Gly Pro Ser Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp  
 20 25 30

Glu Glu Phe Tyr Val Asp Leu Gly Lys Lys Glu Thr Val Trp Gln Leu  
 35 40 45

Pro Leu Phe Ser Lys Phe Arg Ser Phe Asp Pro Gln Gly Ala Leu Arg  
 50 55 60

Asn Ile Ala Thr Ala Lys His Asn Leu Asn Ile Leu Ile Lys Arg Ser  
 65 70 75 80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Pro  
 85 90 95

Lys Ser Pro Val Met Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val  
 100 105 110

Asp Asn Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly  
 115 120 125

His Ser Val Thr Glu Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn  
 130 135 140

Asp His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp  
 145 150 155 160

Asp Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro  
 165 170 175

Leu Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu  
 180 185 190

Thr Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly  
 195 200 205

Ile Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly  
 Page 247

210

215

58332-B2  
220

Pro Ser Arg His Gln Gly Ser Leu  
225 230

&lt;210&gt; 365

&lt;211&gt; 232

&lt;212&gt; PRT

&lt;213&gt; Swine SLA-DQA

&lt;400&gt; 365

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr  
1 5 10 15

Gln Ser Tyr Gly Pro Ser Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp  
20 25 30

Glu Glu Phe Tyr Val Asp Leu Gly Lys Lys Glu Thr Val Trp Gln Leu  
35 40 45

Pro Leu Phe Ser Lys Phe Arg Ser Phe Asp Pro Gln Gly Ala Leu Arg  
50 55 60

Asn Ile Ala Thr Ala Lys His Asn Leu Asn Ile Leu Ile Lys Arg Ser  
65 70 75 80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Pro  
85 90 95

Lys Ser Pro Val Met Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val  
100 105 110

Asp Asn Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly  
115 120 125

His Ser Val Thr Glu Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn  
130 135 140

Asp His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp  
145 150 155 160

Asp Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro  
165 170 175

58332-B2  
 Leu Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu  
                   180                                  185                                  190

Thr Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly  
           195                                  200                                  205

Ile Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly  
       210                                  215                                  220

Pro Ser Arg His Gln Gly Ser Leu  
 225                                  230

<210> 366

<211> 232

<212> PRT

<213> Swine SLA-DQA

<400> 366

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr  
 1                  5                                  10                                  15

Gln Ser Tyr Gly Pro Ser Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp  
                   20                                  25                                  30

Glu Glu Phe Tyr Val Asp Leu Glu Lys Lys Glu Thr Val Trp Gln Leu  
           35                                  40                                  45

Pro Leu Phe Ser Lys Phe Thr Ser Phe Asp Pro Gln Gly Ala Leu Arg  
       50                                  55                                  60

Asn Ile Ala Thr Ala Lys His Asn Leu Asn Ile Leu Ile Lys Arg Ser  
 65                                  70                                  75                                  80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Pro  
                   85                                  90                                  95

Lys Ser Pro Val Met Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val  
           100                                  105                                  110

Asp Asn Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly  
           115                                  120                                  125

His Ser Val Thr Glu Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn  
       130                                  135                                  140

## 58332-B2

Asp His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp  
 145 150 155 160

Asp Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro  
 165 170 175

Leu Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu  
 180 185 190

Thr Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly  
 195 200 205

Ile Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly  
 210 215 220

Pro Ser Arg His Gln Gly Ser Leu  
 225 230

<210> 367

<211> 231

<212> PRT

<213> Swine SLA-DQA

<400> 367

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr  
 1 5 10 15

Gln Ser Tyr Gly Pro Arg Gly Tyr Tyr Thr His Glu Phe Asp Gly Asp  
 20 25 30

Glu Gln Phe Tyr Val Asp Leu Glu Lys Lys Glu Thr Val Trp Arg Leu  
 35 40 45

Pro Leu Phe Ser Glu Phe Thr Ser Phe Asp Pro Gln Gly Ala Leu Arg  
 50 55 60

Asn Ile Ala Thr Leu Lys His Asn Leu Asn Ile Val Thr Lys Arg Ser  
 65 70 75 80

Asn Asn Thr Ala Ala Val Asn Lys Val Pro Glu Val Thr Val Phe Ser  
 85 90 95

Lys Ser Pro Val Ile Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val  
 100 105 110

Asp Ser Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly  
 115 120 125

His Ser Val Lys Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn Asp  
 130 135 140

His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp Asp  
 145 150 155 160

Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro Leu  
 165 170 175

Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu Thr  
 180 185 190

Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly Ile  
 195 200 205

Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Arg Ser Gly Gly Pro  
 210 215 220

Ser Arg His Gln Gly Ser Leu  
 225 230

<210> 368

<211> 231

<212> PRT

<213> Swine SLA-DQA

<400> 368

Glu Asp Ile Ala Ala Asp His Val Ala Ser Tyr Gly Leu Asn Val Tyr  
 1 5 10 15

Gln Ser Tyr Gly Pro Arg Gly Tyr Phe Thr His Glu Phe Asp Gly Asp  
 20 25 30

Glu Gln Phe Tyr Val Asp Leu Glu Lys Lys Glu Thr Val Trp Arg Leu  
 35 40 45

Pro Leu Phe Ser Glu Phe Thr Ser Phe Asp Pro Gln Gly Ala Leu Arg  
 50 55 60

Asn Ile Ala Thr Leu Lys His Asn Leu Asn Ile Val Thr Lys Arg Ser  
 Page 251



## 58332-B2

Glu Glu Phe Tyr Val Asp Leu Glu Lys Lys Glu Thr Val Trp Arg Leu  
 35 40 45

Pro Leu Phe Ser Glu Phe Thr Ser Phe Asp Pro Gln Gly Ala Leu Arg  
 50 55 60

Asn Ile Ala Thr Leu Lys His Asn Leu Asn Ile Val Thr Lys Arg Ser  
 65 70 75 80

Asn Asn Thr Ala Ala Val Asn Gln Val Pro Glu Val Thr Val Phe Ser  
 85 90 95

Lys Ser Pro Val Ile Leu Gly Gln Pro Asn Thr Leu Ile Cys His Val  
 100 105 110

Asp Ser Ile Phe Pro Pro Val Ile Asn Ile Thr Trp Leu Lys Asn Gly  
 115 120 125

His Ser Val Lys Gly Phe Ser Glu Thr Ser Phe Leu Ser Lys Asn Asp  
 130 135 140

His Ser Phe Leu Lys Ile Ser Tyr Leu Thr Phe Leu Pro Ser Asp Asp  
 145 150 155 160

Asp Phe Tyr Asp Cys Lys Val Glu His Trp Gly Leu Asp Lys Pro Leu  
 165 170 175

Leu Lys His Trp Glu Pro Glu Ile Pro Ala Pro Met Ser Glu Leu Thr  
 180 185 190

Glu Thr Val Val Cys Ala Leu Gly Leu Ile Val Gly Leu Val Gly Ile  
 195 200 205

Val Val Gly Thr Val Phe Ile Ile Gln Gly Leu Leu Ser Gly Gly Pro  
 210 215 220

Ser Arg His Gln Gly Ser Leu  
 225 230

<210> 370

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 370



## 58332-B2

Gly Arg Asp Ser Pro Gln Asp Phe Val Val Gln Phe Lys Gly Glu Cys  
 1 5 10 15  
 Tyr Phe Tyr Asn Gly Thr Gln Arg Val Trp Ser Val Asp Arg Tyr Ile  
 20 25 30  
 Tyr Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Met Gly Glu Tyr  
 35 40 45  
 Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Phe Tyr Leu Asn Gly  
 50 55 60  
 Gln Lys Glu Ala Leu Glu Gln Lys Arg Ala Glu Leu Asp Thr Val Cys  
 65 70 75 80  
 Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val  
 85 90 95  
 Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His  
 100 105 110  
 His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val  
 115 120 125  
 Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val  
 130 135 140  
 Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val  
 145 150 155 160  
 Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val  
 165 170 175  
 Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln  
 180 185 190  
 Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val  
 195 200 205  
 Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser  
 210 215 220  
 Gln Lys Gly Leu Val Arg  
 225 230

&lt;210&gt; 371

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Swine SLA-DQB

&lt;400&gt; 371

Gly Arg Asp Ser Pro Gln Asp Phe Val Phe Gln Phe Lys Gly Glu Cys  
 1 5 10 15

Tyr Phe Tyr Asn Gly Thr Gln Arg Val Trp Ser Val Asp Arg Tyr Ile  
 20 25 30

Tyr Asn Gln Glu Glu Phe Leu Arg Phe Asp Ser Asp Met Gly Glu Tyr  
 35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Asp Tyr Leu Asn Gly  
 50 55 60

Gln Lys Glu Ala Leu Glu Gln Lys Arg Ala Glu Leu Asp Thr Val Cys  
 65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val  
 85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His  
 100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val  
 115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val  
 130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val  
 145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val  
 165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln  
 180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val  
 195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser  
 Page 255

210

215

58332-B2  
220Gln Lys Gly Leu Val Arg  
225 230

&lt;210&gt; 372

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Swine SLA-DQB

&lt;400&gt; 372

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Phe Glu Cys  
1 5 10 15Tyr Phe Phe Asn Gly Thr Gln Arg Val Arg Gly Val Ala Arg Trp Val  
20 25 30Tyr Asn Gln Glu Glu His Val Arg Phe Asp Ser Asp Val Gly Glu Phe  
35 40 45Arg Ala Val Thr Pro Leu Gly Arg Pro Thr Ala Asp Tyr Trp Asn Gly  
50 55 60Gln Lys Asp Val Leu Glu Gln Lys Arg Ala Glu Val Asp Thr Val Cys  
65 70 75 80Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val  
85 90 95Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His  
100 105 110His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val  
115 120 125Lys Val Gln Trp Asn Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val  
130 135 140Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val  
145 150 155 160Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val  
165 170 175

58332-B2

Glu His Ser Ser Leu Gln Asn Pro Ile Leu Val Glu Trp Arg Ala Gln  
                   180                  185                  190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val  
           195                  200                  205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser  
       210                  215                  220

Gln Lys Gly Leu Val Arg  
 225                  230

<210> 373

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 373

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Phe Glu Cys  
   1                  5                  10                  15

Tyr Phe Tyr Asn Gly Thr Gln Arg Val Arg Leu Val Ala Arg Trp Val  
           20                  25                  30

Tyr Asn Arg Glu Glu His Val Arg Phe Asp Ser Asp Val Gly Glu Phe  
           35                  40                  45

Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Asp Tyr Trp Asn Gly  
       50                  55                  60

Gln Lys Glu Val Leu Glu Gln Lys Arg Ala Glu Leu Asp Thr Val Cys  
   65                  70                  75                  80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val  
           85                  90                  95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His  
           100                  105                  110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val  
       115                  120                  125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val  
       130                  135                  140

## 58332-B2

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val  
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val  
165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln  
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val  
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser  
210 215 220

Gln Lys Gly Leu Val Arg  
225 230

<210> 374

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 374

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Phe Glu Cys  
1 5 10 15

Tyr Phe Phe Asn Gly Thr Gln Arg Val Arg Leu Val Thr Arg Tyr Ile  
20 25 30

Tyr Asn Gln Glu Glu Tyr Ala Arg Phe Asp Ser Asp Val Gly Glu Tyr  
35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Ala Ala Asp Tyr Trp Asn Ser  
50 55 60

Gln Lys Asp Ile Leu Glu Gln Thr Arg Ala Glu Leu Asp Thr Val Cys  
65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val  
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His  
100 105 110

## 58332-B2

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val  
 115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val  
 130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val  
 145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val  
 165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln  
 180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val  
 195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser  
 210 215 220

Gln Lys Gly Leu Val Arg  
 225 230

<210> 375

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 375

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Phe Glu Cys  
 1 5 10 15

Tyr Phe Phe Asn Gly Thr Gln Arg Val Arg Leu Leu Thr Arg Tyr Ile  
 20 25 30

Tyr Asn Gln Glu Glu His Val Arg Phe Asp Ser Asn Val Gly Glu Tyr  
 35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Asp Tyr Trp Asn Gly  
 50 55 60

Gln Lys Asp Val Leu Glu Gln Thr Arg Ala Glu Leu Asp Thr Val Cys  
 Page 259

58332-B2  
75

65

70

80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val  
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His  
100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val  
115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val  
130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val  
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val  
165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln  
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val  
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser  
210 215 220

Gln Lys Gly Leu Val Arg  
225 230

<210> 376

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 376

Gly Arg Asp Ser Pro Gln Asp Phe Val Tyr Gln Phe Lys Gly Glu Cys  
1 5 10 15

Tyr Phe Phe Asn Gly Thr Gln Arg Val Arg His Val Thr Arg Tyr Ile  
20 25 30

Tyr Asn Gln Glu Glu His Val Arg Phe Asp Ser Asp Val Gly Glu Phe  
 35 40 45 58332-82

Arg Ala Val Thr Pro Leu Gly Arg Pro Asp Ala Asp Tyr Trp Asn Gly  
 50 55 60

Gln Lys Asp Phe Leu Glu Gln Thr Arg Ala Glu Leu Asp Thr Val Cys  
 65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val  
 85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His  
 100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val  
 115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val  
 130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val  
 145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val  
 165 170 175

Glu His Ser Ser Leu Gln Ser Pro Ile Leu Val Glu Trp Arg Ala Gln  
 180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val  
 195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser  
 210 215 220

Gln Lys Gly Leu Val Arg  
 225 230

<210> 377

<211> 230

<212> PRT

<213> Swine SLA-DQB

<400> 377



58332-B2

Gly Arg Asp Ser Pro Gln Asp Phe Val Phe Gln Phe Lys Gly Glu Cys  
1 5 10 15

Tyr Phe Tyr Asn Gly Thr Gln Arg Val Arg Gly Val Ala Arg Tyr Ile  
20 25 30

Tyr Asn Gln Glu Glu His Leu Arg Phe Asp Ser Asp Val Gly Glu Phe  
35 40 45

Arg Ala Val Thr Pro Leu Gly Arg Pro Glu Ala Asp Ser Trp Asn Ser  
50 55 60

Gln Lys Asp Val Leu Glu Gln Met Arg Ala Glu Val Asp Arg Val Cys  
65 70 75 80

Lys His Asn Tyr Gln Ile Glu Glu Gly Thr Thr Leu Gln Arg Arg Val  
85 90 95

Gln Pro Thr Val Thr Ile Ser Pro Ser Lys Ala Glu Ala Leu Asn His  
100 105 110

His Asn Leu Leu Val Cys Ala Val Thr Asp Phe Tyr Pro Ser Gln Val  
115 120 125

Lys Val Gln Trp Phe Arg Asn Gly Gln Glu Glu Thr Ala Gly Val Val  
130 135 140

Ser Thr Pro Leu Ile Arg Asn Gly Asp Trp Thr Tyr Gln Val Leu Val  
145 150 155 160

Met Leu Glu Met Asn Leu Gln Arg Gly Asp Val Tyr Thr Cys Arg Val  
165 170 175

Glu His Ser Ser Leu Gln Asn Pro Ile Leu Val Glu Trp Arg Ala Gln  
180 185 190

Ser Glu Ser Ala Gln Ser Lys Met Leu Ser Gly Val Gly Gly Phe Val  
195 200 205

Leu Gly Leu Ile Phe Leu Gly Leu Gly Leu Phe Ile Arg His Arg Ser  
210 215 220

Gln Lys Gly Leu Val Arg  
225 230

<210> 378

&lt;211&gt; 1344

&lt;212&gt; DNA

&lt;213&gt; Human Immunoglobulin-Like Transcript

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(1344)

&lt;223&gt;

&lt;400&gt; 378

atg atc ccc acc ttc acg gct ctg ctc tgc ctc ggg ctg agt ctg ggc	48
Met Ile Pro Thr Phe Thr Ala Leu Leu Cys Leu Gly Leu Ser Leu Gly	
1 5 10 15	
ccc agg acc cac atg cag gca ggg ccc ctc ccc aaa ccc acc ctc tgg	96
Pro Arg Thr His Met Gln Ala Gly Pro Leu Pro Lys Pro Thr Leu Trp	
20 25 30	
gct gag cca ggc tct gtg atc agc tgg ggg aac tct gtg acc atc tgg	144
Ala Glu Pro Gly Ser Val Ile Ser Trp Gly Asn Ser Val Thr Ile Trp	
35 40 45	
tgt cag ggg acc ctg gag gct cgg gag tac cgt ctg gat aaa gag gaa	192
Cys Gln Gly Thr Leu Glu Ala Arg Glu Tyr Arg Leu Asp Lys Glu Glu	
50 55 60	
agc cca gca ccc tgg gac aga cag aac cca ctg gag ccc aag aac aag	240
Ser Pro Ala Pro Trp Asp Arg Gln Asn Pro Leu Glu Pro Lys Asn Lys	
65 70 75 80	
gcc aga ttc tcc atc cca tcc atg aca gag gac tat gca ggg aga tac	288
Ala Arg Phe Ser Ile Pro Ser Met Thr Glu Asp Tyr Ala Gly Arg Tyr	
85 90 95	
cgc tgt tac tat cgc agc cct gta ggc tgg tca cag ccc agt gac ccc	336
Arg Cys Tyr Tyr Arg Ser Pro Val Gly Trp Ser Gln Pro Ser Asp Pro	
100 105 110	
ctg gag ctg gtg atg aca gga gcc tac agt aaa ccc acc ctt tca gcc	384
Leu Glu Leu Val Met Thr Gly Ala Tyr Ser Lys Pro Thr Leu Ser Ala	
115 120 125	
ctg ccg agt cct ctt gtg acc tca gga aag agc gtg acc ctg ctg tgt	432
Leu Pro Ser Pro Leu Val Thr Ser Gly Lys Ser Val Thr Leu Leu Cys	
130 135 140	
cag tca cgg agc cca atg gac act ttc ctt ctg atc aag gag cgg gca	480
Gln Ser Arg Ser Pro Met Asp Thr Phe Leu Leu Ile Lys Glu Arg Ala	
145 150 155 160	
gcc cat ccc cta ctg cat ctg aga tca gag cac gga gct cag cag cac	528
Ala His Pro Leu Leu His Leu Arg Ser Glu His Gly Ala Gln Gln His	
165 170 175	

58332-B2

cag	gct	gaa	ttc	ccc	atg	agt	cct	gtg	acc	tca	gtg	cac	ggg	ggg	acc	576
Gln	Ala	Glu	Phe	Pro	Met	Ser	Pro	Val	Thr	Ser	Val	His	Gly	Gly	Thr	
			180					185					190			
tac	agg	tgc	ttc	agc	tca	cac	ggc	ttc	tcc	cac	tac	ctg	ctg	tca	cac	624
Tyr	Arg	Cys	Phe	Ser	Ser	His	Gly	Phe	Ser	His	Tyr	Leu	Leu	Ser	His	
		195					200					205				
ccc	agt	gac	ccc	ctg	gag	ctc	ata	gtc	tca	gga	tcc	ttg	gag	ggt	ccc	672
Pro	Ser	Asp	Pro	Leu	Glu	Leu	Ile	Val	Ser	Gly	Ser	Leu	Glu	Gly	Pro	
	210					215					220					
agg	ccc	tca	ccc	aca	agg	tcc	gtc	tca	aca	gct	gca	ggc	cct	gag	gac	720
Arg	Pro	Ser	Pro	Thr	Arg	Ser	Val	Ser	Thr	Ala	Ala	Gly	Pro	Glu	Asp	
225					230					235					240	
cag	ccc	ctc	atg	cct	aca	ggg	tca	gtc	ccc	cac	agt	ggt	ctg	aga	agg	768
Gln	Pro	Leu	Met	Pro	Thr	Gly	Ser	Val	Pro	His	Ser	Gly	Leu	Arg	Arg	
				245					250					255		
cac	tgg	gag	gta	ctg	atc	ggg	gtc	ttg	gtg	gtc	tcc	atc	ctg	ctt	ctc	816
His	Trp	Glu	Val	Leu	Ile	Gly	Val	Leu	Val	Val	Ser	Ile	Leu	Leu	Leu	
			260					265					270			
tcc	ctc	ctc	ctc	ttc	ctc	ctc	ctc	caa	cac	tgg	cgt	cag	gga	aaa	cac	864
Ser	Leu	Leu	Leu	Phe	Leu	Leu	Leu	Gln	His	Trp	Arg	Gln	Gly	Lys	His	
		275					280					285				
agg	aca	ttg	gcc	cag	aga	cag	gct	gat	ttc	caa	cgt	cct	cca	ggg	gct	912
Arg	Thr	Leu	Ala	Gln	Arg	Gln	Ala	Asp	Phe	Gln	Arg	Pro	Pro	Gly	Ala	
	290					295					300					
gcc	gag	cca	gag	ccc	aag	gac	ggg	ggc	cta	cag	agg	agg	tcc	agc	cca	960
Ala	Glu	Pro	Glu	Pro	Lys	Asp	Gly	Gly	Leu	Gln	Arg	Arg	Ser	Ser	Pro	
305					310					315					320	
gct	gct	gac	gtc	cag	gga	gaa	aac	ttc	tgt	gct	gcc	gtg	aag	aac	aca	1008
Ala	Ala	Asp	Val	Gln	Gly	Glu	Asn	Phe	Cys	Ala	Ala	Val	Lys	Asn	Thr	
				325					330					335		
cag	cct	gag	gac	ggg	gtg	gaa	atg	gac	act	cgg	agc	cca	cac	gat	gaa	1056
Gln	Pro	Glu	Asp	Gly	Val	Glu	Met	Asp	Thr	Arg	Ser	Pro	His	Asp	Glu	
			340					345					350			
gac	ccc	cag	gca	gtg	acg	tat	gcc	aag	gtg	aaa	cac	tcc	aga	cct	agg	1104
Asp	Pro	Gln	Ala	Val	Thr	Tyr	Ala	Lys	Val	Lys	His	Ser	Arg	Pro	Arg	
		355					360					365				
aga	gaa	atg	gcc	tct	cct	ccc	tcc	cca	ctg	tct	ggg	gaa	ttc	ctg	gac	1152
Arg	Glu	Met	Ala	Ser	Pro	Pro	Ser	Pro	Leu	Ser	Gly	Glu	Phe	Leu	Asp	
	370				375						380					
aca	aag	gac	aga	cag	gca	gaa	gag	gac	aga	cag	atg	gac	act	gag	gct	1200
Thr	Lys	Asp	Arg	Gln	Ala	Glu	Glu	Asp	Arg	Gln	Met	Asp	Thr	Glu	Ala	
385				390						395					400	
gct	gca	tct	gaa	gcc	ccc	cag	gat	gtg	acc	tac	gcc	cag	ctg	cac	agc	1248
Ala	Ala	Ser	Glu	Ala	Pro	Gln	Asp	Val	Thr	Tyr	Ala	Gln	Leu	His	Ser	
				405					410					415		
ttt	acc	ctc	aga	cag	aag	gca	act	gag	cct	cct	cca	tcc	cag	gaa	ggg	1296
Phe	Thr	Leu	Arg	Gln	Lys	Ala	Thr	Glu	Pro	Pro	Pro	Ser	Gln	Glu	Gly	
			420					425					430			

gcc tct cca gct gag ccc agt gtc tat gcc act ctg gcc atc cac taa  
 Ala Ser Pro Ala Glu Pro Ser Val Tyr Ala Thr Leu Ala Ile His  
           435                          440                          445

<210> 379

<211> 447

<212> PRT

<213> Human Immunoglobulin-Like Transcript

<400> 379

Met Ile Pro Thr Phe Thr Ala Leu Leu Cys Leu Gly Leu Ser Leu Gly  
   1                  5                  10                  15

Pro Arg Thr His Met Gln Ala Gly Pro Leu Pro Lys Pro Thr Leu Trp  
           20                  25                  30

Ala Glu Pro Gly Ser Val Ile Ser Trp Gly Asn Ser Val Thr Ile Trp  
           35                  40                  45

Cys Gln Gly Thr Leu Glu Ala Arg Glu Tyr Arg Leu Asp Lys Glu Glu  
   50                  55                  60

Ser Pro Ala Pro Trp Asp Arg Gln Asn Pro Leu Glu Pro Lys Asn Lys  
   65                  70                  75                  80

Ala Arg Phe Ser Ile Pro Ser Met Thr Glu Asp Tyr Ala Gly Arg Tyr  
           85                  90                  95

Arg Cys Tyr Tyr Arg Ser Pro Val Gly Trp Ser Gln Pro Ser Asp Pro  
           100                  105                  110

Leu Glu Leu Val Met Thr Gly Ala Tyr Ser Lys Pro Thr Leu Ser Ala  
   115                  120                  125

Leu Pro Ser Pro Leu Val Thr Ser Gly Lys Ser Val Thr Leu Leu Cys  
   130                  135                  140

Gln Ser Arg Ser Pro Met Asp Thr Phe Leu Leu Ile Lys Glu Arg Ala  
   145                  150                  155                  160

Ala His Pro Leu Leu His Leu Arg Ser Glu His Gly Ala Gln Gln His  
           165                  170                  175

Gln Ala Glu Phe Pro Met Ser Pro Val Thr Ser Val His Gly Gly Thr  
   Page 265

180								185						190	
Tyr	Arg	Cys	Phe	Ser	Ser	His	Gly	Phe	Ser	His	Tyr	Leu	Leu	Ser	His
		195					200					205			
Pro	Ser	Asp	Pro	Leu	Glu	Leu	Ile	Val	Ser	Gly	Ser	Leu	Glu	Gly	Pro
	210					215					220				
Arg	Pro	Ser	Pro	Thr	Arg	Ser	Val	Ser	Thr	Ala	Ala	Gly	Pro	Glu	Asp
225					230					235					240
Gln	Pro	Leu	Met	Pro	Thr	Gly	Ser	Val	Pro	His	Ser	Gly	Leu	Arg	Arg
				245					250					255	
His	Trp	Glu	Val	Leu	Ile	Gly	Val	Leu	Val	Val	Ser	Ile	Leu	Leu	Leu
			260					265					270		
Ser	Leu	Leu	Leu	Phe	Leu	Leu	Leu	Gln	His	Trp	Arg	Gln	Gly	Lys	His
		275					280					285			
Arg	Thr	Leu	Ala	Gln	Arg	Gln	Ala	Asp	Phe	Gln	Arg	Pro	Pro	Gly	Ala
	290					295					300				
Ala	Glu	Pro	Glu	Pro	Lys	Asp	Gly	Gly	Leu	Gln	Arg	Arg	Ser	Ser	Pro
305					310					315					320
Ala	Ala	Asp	Val	Gln	Gly	Glu	Asn	Phe	Cys	Ala	Ala	Val	Lys	Asn	Thr
				325					330					335	
Gln	Pro	Glu	Asp	Gly	Val	Glu	Met	Asp	Thr	Arg	Ser	Pro	His	Asp	Glu
			340					345					350		
Asp	Pro	Gln	Ala	Val	Thr	Tyr	Ala	Lys	Val	Lys	His	Ser	Arg	Pro	Arg
		355					360					365			
Arg	Glu	Met	Ala	Ser	Pro	Pro	Ser	Pro	Leu	Ser	Gly	Glu	Phe	Leu	Asp
	370					375					380				
Thr	Lys	Asp	Arg	Gln	Ala	Glu	Glu	Asp	Arg	Gln	Met	Asp	Thr	Glu	Ala
385					390					395					400
Ala	Ala	Ser	Glu	Ala	Pro	Gln	Asp	Val	Thr	Tyr	Ala	Gln	Leu	His	Ser
				405					410					415	
Phe	Thr	Leu	Arg	Gln	Lys	Ala	Thr	Glu	Pro	Pro	Pro	Ser	Gln	Glu	Gly
			420					425					430		

Ala Ser Pro Ala Glu Pro Ser Val Tyr Ala Thr Leu Ala Ile His  
 435 440 445

<210> 380

<211> 1794

<212> DNA

<213> Human Immunoglobulin-Like Transcript

<220>

<221> CDS

<222> (1)..(1794)

<223>

<400> 380

atg acc ccc atc gtc aca gtc ctg atc tgt ctc ggg ctg agt ctg ggc	48
Met Thr Pro Ile Val Thr Val Leu Ile Cys Leu Gly Leu Ser Leu Gly	
1 5 10 15	
ccc agg acc cgc gtg cag aca ggg acc atc ccc aag ccc acc ctg tgg	96
Pro Arg Thr Arg Val Gln Thr Gly Thr Ile Pro Lys Pro Thr Leu Trp	
20 25 30	
gct gag cca gac tct gtg atc acc cag ggg agt ccc gtc acc ctc agt	144
Ala Glu Pro Asp Ser Val Ile Thr Gln Gly Ser Pro Val Thr Leu Ser	
35 40 45	
tgt cag ggg agc ctt gaa gcc cag gag tac cgt cta tat agg gag aaa	192
Cys Gln Gly Ser Leu Glu Ala Gln Glu Tyr Arg Leu Tyr Arg Glu Lys	
50 55 60	
aaa tca gca tct tgg att aca cgg ata cga cca gag ctt gtg aag aac	240
Lys Ser Ala Ser Trp Ile Thr Arg Ile Arg Pro Glu Leu Val Lys Asn	
65 70 75 80	
ggc cag ttc cac atc cca tcc atc acc tgg gaa cac aca ggg cga tat	288
Gly Gln Phe His Ile Pro Ser Ile Thr Trp Glu His Thr Gly Arg Tyr	
85 90 95	
ggc tgt cag tat tac agc cgc gct cgg tgg tct gag ctc agt gac ccc	336
Gly Cys Gln Tyr Tyr Ser Arg Ala Arg Trp Ser Glu Leu Ser Asp Pro	
100 105 110	
ctg gtg ctg gtg atg aca gga gcc tac cca aaa ccc acc ctc tca gcc	384
Leu Val Leu Val Met Thr Gly Ala Tyr Pro Lys Pro Thr Leu Ser Ala	
115 120 125	
cag ccc agc cct gtg gtg acc tca gga gga agg gtg acc ctc cag tgt	432
Gln Pro Ser Pro Val Val Thr Ser Gly Gly Arg Val Thr Leu Gln Cys	
130 135 140	
gag tca cag gtg gca ttt ggc ggc ttc att ctg tgt aag gaa gga gaa	480
Glu Ser Gln Val Ala Phe Gly Gly Phe Ile Leu Cys Lys Glu Gly Glu	

145	58332-B2										150	155										160	
gat	gaa	cac	cca	caa	tgc	ctg	aac	tcc	cag	ccc	cat	gcc	cgt	ggg	tgc	528							
Asp	Glu	His	Pro	Gln	Cys	Leu	Asn	Ser	Gln	Pro	His	Ala	Arg	Gly	Ser								
				165					170					175									
tcc	cgc	gcc	atc	ttc	tcc	gtg	ggc	ccc	gtg	agc	ccg	aat	cgc	agg	tgg	576							
Ser	Arg	Ala	Ile	Phe	Ser	Val	Gly	Pro	Val	Ser	Pro	Asn	Arg	Arg	Trp								
			180					185					190										
tcg	cac	agg	tgc	tat	ggt	tat	gac	ttg	aac	tct	ccc	tat	gtg	tgg	tct	624							
Ser	His	Arg	Cys	Tyr	Gly	Tyr	Asp	Leu	Asn	Ser	Pro	Tyr	Val	Trp	Ser								
		195					200					205											
tca	ccc	agt	gat	ctc	ctg	gag	ctc	ctg	gtc	cca	ggt	gtt	tct	aag	aag	672							
Ser	Pro	Ser	Asp	Leu	Leu	Glu	Leu	Leu	Val	Pro	Gly	Val	Ser	Lys	Lys								
	210					215					220												
cca	tca	ctc	tca	gtg	cag	ccg	ggt	cct	gtc	atg	gcc	cct	ggg	gaa	agc	720							
Pro	Ser	Leu	Ser	Val	Gln	Pro	Gly	Pro	Val	Met	Ala	Pro	Gly	Glu	Ser								
225					230					235					240								
ctg	acc	ctc	cag	tgt	gtc	tct	gat	gtc	ggc	tat	gac	aga	ttt	gtt	ctg	768							
Leu	Thr	Leu	Gln	Cys	Val	Ser	Asp	Val	Gly	Tyr	Asp	Arg	Phe	Val	Leu								
				245					250					255									
tac	aag	gag	ggg	gaa	cgt	gac	ctt	cgc	cag	ctc	cct	ggc	cgg	cag	ccc	816							
Tyr	Lys	Glu	Gly	Glu	Arg	Asp	Leu	Arg	Gln	Leu	Pro	Gly	Arg	Gln	Pro								
			260					265					270										
cag	gct	ggg	ctc	tcc	cag	gcc	aac	ttc	acc	ctg	ggc	cct	gtg	agc	cgc	864							
Gln	Ala	Gly	Leu	Ser	Gln	Ala	Asn	Phe	Thr	Leu	Gly	Pro	Val	Ser	Arg								
		275					280					285											
tcc	tac	ggg	ggc	cag	tac	aga	tgc	tac	ggt	gca	cac	aac	ctc	tcc	tct	912							
Ser	Tyr	Gly	Gly	Gln	Tyr	Arg	Cys	Tyr	Gly	Ala	His	Asn	Leu	Ser	Ser								
	290					295					300												
gag	tgc	tcg	gcc	ccc	agc	gac	ccc	ctg	gac	atc	ctg	atc	aca	gga	cag	960							
Glu	Cys	Ser	Ala	Pro	Ser	Asp	Pro	Leu	Asp	Ile	Leu	Ile	Thr	Gly	Gln								
305					310					315					320								
atc	cgt	ggc	aca	ccc	ttc	atc	tca	gtg	cag	cca	ggc	ccc	aca	gtg	gcc	1008							
Ile	Arg	Gly	Thr	Pro	Phe	Ile	Ser	Val	Gln	Pro	Gly	Pro	Thr	Val	Ala								
				325					330					335									
tca	gga	gag	aac	gtg	acc	ctg	ctg	tgt	cag	tca	tgg	cgg	cag	ttc	cac	1056							
Ser	Gly	Glu	Asn	Val	Thr	Leu	Leu	Cys	Gln	Ser	Trp	Arg	Gln	Phe	His								
			340					345					350										
act	ttc	ctt	ctg	acc	aag	gcg	gga	gca	gct	gat	gcc	cca	ctc	cgt	cta	1104							
Thr	Phe	Leu	Leu	Thr	Lys	Ala	Gly	Ala	Ala	Asp	Ala	Pro	Leu	Arg	Leu								
		355					360					365											
aga	tca	ata	cac	gaa	tat	cct	aag	tac	cag	gct	gaa	ttc	ccc	atg	agt	1152							
Arg	Ser	Ile	His	Glu	Tyr	Pro	Lys	Tyr	Gln	Ala	Glu	Phe	Pro	Met	Ser								
	370					375					380												
cct	gtg	acc	tca	gcc	cac	gcg	ggg	acc	tac	agg	tgc	tac	ggc	tca	ctc	1200							
Pro	Val	Thr	Ser	Ala	His	Ala	Gly	Thr	Tyr	Arg	Cys	Tyr	Gly	Ser	Leu								
385					390					395					400								
aac	tcc	gac	ccc	tac	ctg	ctg	tct	cac	ccc	agt	gag	ccc	ctg	gag	ctc	1248							

58332-B2

Asn	Ser	Asp	Pro	Tyr 405	Leu	Leu	Ser	His	Pro 410	Ser	Glu	Pro	Leu	Glu 415	Leu		
gtg	gtc	tca	gga	ccc	tcc	atg	ggt	tcc	agc	ccc	cca	ccc	acc	ggt	ccc		1296
Val	Val	Ser	Gly	Pro	Ser	Met	Gly	Ser	Ser	Pro	Pro	Pro	Thr	Gly	Pro		
			420					425					430				
atc	tcc	aca	cct	ggc	cct	gag	gac	cag	ccc	ctc	acc	ccc	act	ggg	tcg		1344
Ile	Ser	Thr	Pro	Gly	Pro	Glu	Asp	Gln	Pro	Leu	Thr	Pro	Thr	Gly	Ser		
		435					440					445					
gat	ccc	caa	agt	ggt	ctg	gga	agg	cac	ctg	ggg	ggt	gtg	atc	ggc	atc		1392
Asp	Pro	Gln	Ser	Gly	Leu	Gly	Arg	His	Leu	Gly	Val	Val	Ile	Gly	Ile		
	450					455					460						
ttg	gtg	gcc	gtc	gtc	cta	ctg	ctc	ctc	ctc	ctc	ctc	ctc	ctc	ctc	ttc	ctc	1440
Leu	Val	Ala	Val	Val	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Phe	Leu	
	465				470					475						480	
atc	ctc	cga	cat	cga	cgt	cag	ggc	aaa	cac	tgg	aca	tcg	acc	cag	aga		1488
Ile	Leu	Arg	His	Arg	Arg	Gln	Gly	Lys	His	Trp	Thr	Ser	Thr	Gln	Arg		
				485					490					495			
aag	gct	gat	ttc	caa	cat	cct	gca	ggg	gct	gtg	ggg	cca	gag	ccc	aca		1536
Lys	Ala	Asp	Phe	Gln	His	Pro	Ala	Gly	Ala	Val	Gly	Pro	Glu	Pro	Thr		
			500					505					510				
gac	aga	ggc	ctg	cag	tgg	agg	tcc	agc	cca	gct	gcc	gac	gcc	cag	gaa		1584
Asp	Arg	Gly	Leu	Gln	Trp	Arg	Ser	Ser	Pro	Ala	Ala	Asp	Ala	Gln	Glu		
		515					520					525					
gaa	aac	ctc	tat	gct	gcc	gtg	aag	gac	aca	cag	cct	gaa	gat	ggg	gtg		1632
Glu	Asn	Leu	Tyr	Ala	Ala	Val	Lys	Asp	Thr	Gln	Pro	Glu	Asp	Gly	Val		
	530					535					540						
gag	atg	gac	act	cgg	gct	gca	tct	gaa	gcc	ccc	cag	gat	gtg	acc			1680
Glu	Met	Asp	Thr	Arg	Ala	Ala	Ser	Glu	Ala	Pro	Gln	Asp	Val	Thr			
	545				550				555					560			
tac	gcc	cag	ctg	cac	agc	ttg	acc	ctc	aga	cgg	aag	gca	act	gag	cct		1728
Tyr	Ala	Gln	Leu	His	Ser	Leu	Thr	Leu	Arg	Arg	Lys	Ala	Thr	Glu	Pro		
				565					570					575			
cct	cca	tcc	cag	gaa	agg	gaa	cct	cca	gct	gag	ccc	agc	atc	tac	gcc		1776
Pro	Pro	Ser	Gln	Glu	Arg	Glu	Pro	Pro	Ala	Glu	Pro	Ser	Ile	Tyr	Ala		
			580					585					590				
acc	ctg	gcc	atc	cac	tag												1794
Thr	Leu	Ala	Ile	His													
		595															

<210> 381

<211> 597

<212> PRT

<213> Human Immunoglobulin-Like Transcript

<400> 381



## 58332-B2

Met Thr Pro Ile Val Thr Val Leu Ile Cys Leu Gly Leu Ser Leu Gly  
 1 5 10 15  
 Pro Arg Thr Arg Val Gln Thr Gly Thr Ile Pro Lys Pro Thr Leu Trp  
 20 25 30  
 Ala Glu Pro Asp Ser Val Ile Thr Gln Gly Ser Pro Val Thr Leu Ser  
 35 40 45  
 Cys Gln Gly Ser Leu Glu Ala Gln Glu Tyr Arg Leu Tyr Arg Glu Lys  
 50 55 60  
 Lys Ser Ala Ser Trp Ile Thr Arg Ile Arg Pro Glu Leu Val Lys Asn  
 65 70 75 80  
 Gly Gln Phe His Ile Pro Ser Ile Thr Trp Glu His Thr Gly Arg Tyr  
 85 90 95  
 Gly Cys Gln Tyr Tyr Ser Arg Ala Arg Trp Ser Glu Leu Ser Asp Pro  
 100 105 110  
 Leu Val Leu Val Met Thr Gly Ala Tyr Pro Lys Pro Thr Leu Ser Ala  
 115 120 125  
 Gln Pro Ser Pro Val Val Thr Ser Gly Gly Arg Val Thr Leu Gln Cys  
 130 135 140  
 Glu Ser Gln Val Ala Phe Gly Gly Phe Ile Leu Cys Lys Glu Gly Glu  
 145 150 155 160  
 Asp Glu His Pro Gln Cys Leu Asn Ser Gln Pro His Ala Arg Gly Ser  
 165 170 175  
 Ser Arg Ala Ile Phe Ser Val Gly Pro Val Ser Pro Asn Arg Arg Trp  
 180 185 190  
 Ser His Arg Cys Tyr Gly Tyr Asp Leu Asn Ser Pro Tyr Val Trp Ser  
 195 200 205  
 Ser Pro Ser Asp Leu Leu Glu Leu Leu Val Pro Gly Val Ser Lys Lys  
 210 215 220  
 Pro Ser Leu Ser Val Gln Pro Gly Pro Val Met Ala Pro Gly Glu Ser  
 225 230 235 240  
 Leu Thr Leu Gln Cys Val Ser Asp Val Gly Tyr Asp Arg Phe Val Leu  
 245 250 255

Tyr Lys Glu Gly Glu Arg Asp Leu Arg Gln Leu Pro Gly Arg Gln Pro  
 260 265 270

Gln Ala Gly Leu Ser Gln Ala Asn Phe Thr Leu Gly Pro Val Ser Arg  
 275 280 285

Ser Tyr Gly Gly Gln Tyr Arg Cys Tyr Gly Ala His Asn Leu Ser Ser  
 290 295 300

Glu Cys Ser Ala Pro Ser Asp Pro Leu Asp Ile Leu Ile Thr Gly Gln  
 305 310 315 320

Ile Arg Gly Thr Pro Phe Ile Ser Val Gln Pro Gly Pro Thr Val Ala  
 325 330 335

Ser Gly Glu Asn Val Thr Leu Leu Cys Gln Ser Trp Arg Gln Phe His  
 340 345 350

Thr Phe Leu Leu Thr Lys Ala Gly Ala Ala Asp Ala Pro Leu Arg Leu  
 355 360 365

Arg Ser Ile His Glu Tyr Pro Lys Tyr Gln Ala Glu Phe Pro Met Ser  
 370 375 380

Pro Val Thr Ser Ala His Ala Gly Thr Tyr Arg Cys Tyr Gly Ser Leu  
 385 390 395 400

Asn Ser Asp Pro Tyr Leu Leu Ser His Pro Ser Glu Pro Leu Glu Leu  
 405 410 415

Val Val Ser Gly Pro Ser Met Gly Ser Ser Pro Pro Pro Thr Gly Pro  
 420 425 430

Ile Ser Thr Pro Gly Pro Glu Asp Gln Pro Leu Thr Pro Thr Gly Ser  
 435 440 445

Asp Pro Gln Ser Gly Leu Gly Arg His Leu Gly Val Val Ile Gly Ile  
 450 455 460

Leu Val Ala Val Val Leu Leu Leu Leu Leu Leu Leu Leu Phe Leu  
 465 470 475 480

Ile Leu Arg His Arg Arg Gln Gly Lys His Trp Thr Ser Thr Gln Arg  
 485 490 495

Lys Ala Asp Phe Gln His Pro Ala Gly Ala Val Gly Pro Glu Pro Thr  
 Page 271

500

505

510

Asp Arg Gly Leu Gln Trp Arg Ser Ser Pro Ala Ala Asp Ala Gln Glu  
 515 520 525

Glu Asn Leu Tyr Ala Ala Val Lys Asp Thr Gln Pro Glu Asp Gly Val  
 530 535 540

Glu Met Asp Thr Arg Ala Ala Ala Ser Glu Ala Pro Gln Asp Val Thr  
 545 550 555 560

Tyr Ala Gln Leu His Ser Leu Thr Leu Arg Arg Lys Ala Thr Glu Pro  
 565 570 575

Pro Pro Ser Gln Glu Arg Glu Pro Pro Ala Glu Pro Ser Ile Tyr Ala  
 580 585 590

Thr Leu Ala Ile His  
 595

<210> 382  
 <211> 34  
 <212> PRT  
 <213> Human HLA-DRB

<400> 382

Arg Lys Lys Arg Arg Gln Arg Arg Gln Lys Asp Leu Leu Glu Gln Lys  
 1 5 10 15

Arg Ala Ala Val Asp Thr Tyr Cys Arg His Asn Tyr Gly Val Gly Glu Ser  
 20 25 30